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EDITORIAL

Nancy Mitford really started something. She's the witty soul who put pen in cheek (now there's a doubtful analogy!) and began all this business about U and Non-U people. U (for Upper Class) people always say "toilet"; Non-U people, thinking they're being U, say "water closet." The flurry to scramble aboard the bandwagon has been impressive. We now have people who are in and people who are out, to say nothing of those who are upper-brow, middle-brow, and low-brow. In fact, one Washington society writer announced not so long ago that people who say "draperies" instead of "curtains" are without question socially underprivileged.

Anyone, it appears, can set themselves up as an arbiter of standards in these semantic exercises. Thus assured, we shall proceed to do just that in relation to education. It's a fertile field.

It is out, these days, to talk glibly about "the whole child" but in to speak of a "balanced developmental approach." One should never attempt to "educate" parents about the school's program—that is out. But it is quite all right to "discuss" or "interpret" it. Education should not be referred to as a "science"—that puts you back in the 20's. But an art? A profession? That's smartly up to date.

Teachers are not trained. They're prepared. Grammar school and (horrors!) grade school are out—way out—but elementary school is in. We're no longer concerned with voice choirs and speech education (unless, of course, we're a speech educator), but we do talk about learning to communicate effectively. Understandings (do note the "s") are the rage—along with learnings and competencies —but, frankly, we're not quite sure what is out. School is not some place where people learn. It is an educational environment structured to meet the needs of children. Problems, nowadays, are invariably "real"; the ideal teacher is unfailingly described as "professionally competent"; and the word "group" must always have an adjective —homogeneous, heterogeneous, structured, unstructured, work, discussion, buzz.

And so it goes. We won't insult your intelligence by announcing the moral in neon lights. Morals (the McGuffey type) are out.

The Editor

JACK BE NIMBLE, JACK BE QUICK--

new wisdom in an old nursery admonition. Jack be nimble—and reach for the newest, surest way to understand nature's phenomena.

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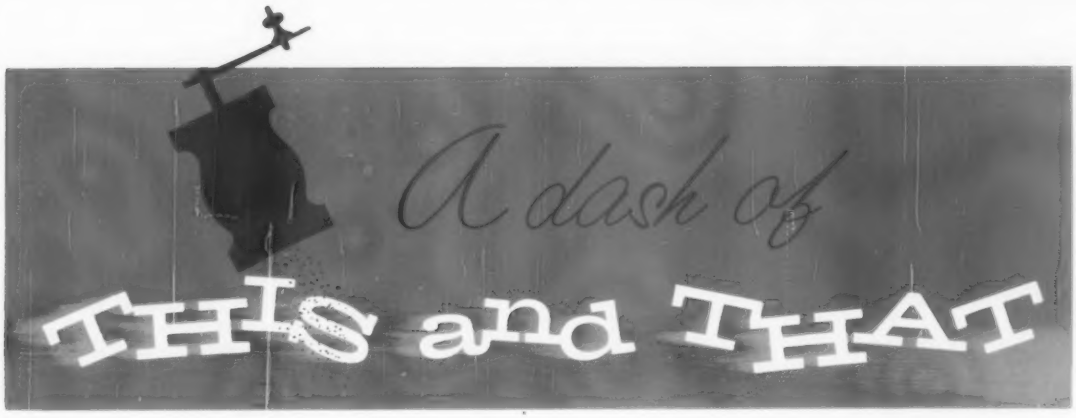

THE DIPLOMA SEEKERS—Recent U. S. Office of Education statistics indicate that although the college door may not be closing, it is at least crowded. In 1960, the enrollment in higher institutions per 100 persons 18 to 21 years old was 39.2. In 1955, it was 30.9 and at the beginning of the century, only 4 per 100.

The nation's teachers colleges have experienced the greatest influx of students — up 65 percent over the past 6 years. This is almost double the enrollment bulge in the universities.

POGO TO THE RESCUE—Somewhere, we've heard vague rumblings about the ills of television and its effect on young, impressionable minds. Most everyone—from psychiatrists to parents, from teachers to telecasters—has had something to say on the subject. But no one has succeeded in solving the problem beyond the point of agreeing that probably there is a problem.

At long last, though, there is hope. Pogo (naturally, you do know Pogo) has come to the rescue. Unlike the psychiatrists (they are very learned men who study people's heads and make reports), Pogo doesn't need big words to explain about television and children. His *Pogo Primer for Parents (TV Division),* published by the U. S. Children's Bureau, makes it all quite clear.

Parents, Pogo says, are afraid of the television set because they think it will turn the child into a monster. But they let the child watch TV because how else could they find time to answer the phone, read the sports page, do housework, and have headaches? Then, too, it's better to let the TV set watch the child than let the child get run over by a truck.

Since these are the realities of life, Pogo advises parents to make watching TV a "normal part of a balanced whole. Just like radio, comic books, formal education, and love . . . Also milk." Parents should find out what is best for their child to watch and patiently share TV viewing. Then psychiatrists will cheer parents, and even though parents may not sound very learned like psychiatrists and be invited to speak at PTA meetings and drink lots of cold coffee, they will be successful at "do-it-yourself" happiness. Or so says the *Pogo Primer for Parents (TV Division).*

WHAT PRICE "PATRIOTISM"?—The crucial matter of academic freedom has again been brought to the fore by Nathan Pusey, President of Harvard University. Refusing for the fourth year to participate in the NDEA's student loan program, Harvard and Dr. Pusey have vigorously attacked the law's requirement that the student borrower sign a disclaimer affidavit that "he does not believe in, and is not a member of and does not support any organization that believes in or teaches, the overthrow of the United States Government by force or violence or by any illegal or unconstitutional methods."

Harvard's stand is primarily predicated on the belief that the disclaimer affidavit "singles out students as special objects of distrust and asks them to make negative statements about their beliefs in a way quite contrary to American principles." Dr. Pusey stressed that although it means sacrificing $250,000 annually which could otherwise be distributed in loans to Harvard students, the University must make clear its "determined opposition to legislation in which there is implied an infringement of an ancient freedom—the freedom of universities to govern themselves."

FACTORS that affect test results

WARREN G. FINDLEY

WE talk quite freely of "giving" and "taking" tests. But "giving tests" is a more complex activity than that short phrase implies and we are warranted in using the more pretentious phrase, "administration of a testing program." Similarly, we need to turn from the simple view implied in the phrase "taking tests" to what might be called "acceptance of testing" on the part of those examined.

What do we mean by acceptance of testing? Early in World War II, the late Walter V. Bingham was discussing the new Army General Classification Test developed under his direction. This was a general aptitude measure and included vocabulary, arithmetic, and spatial relations items. The latter items had been drawn from a college entrance test and consisted of views of piles of "blocks" that were equal in size. The examinee was asked to tell how many such blocks there must be in each pile to support the ones showing. "Why, oh, why," complained Dr. Bingham, "didn't we call them 'boxes' instead of 'blocks'?" His GI examinees readily accepted the vocabulary and arithmetic items as fair game, relevant to evaluating their general usefulness in many activities. In Dr. Bingham's view, they would have accepted as equally relevant the task of counting "boxes," such as they might have seen on any loading platform, but "blocks" were what their little brothers and sisters played with, hardly a man's fare. This fine point in acceptance had been missed in designing the test. It had not been a factor when the blocks were used in college testing because the examinees were accustomed to testing of many varieties and tended to come from scholastic and social circles in which puzzles, if not parlor games, were readily accepted as fair challenges to employ one's wits.

This author retains a vivid memory of his experience in coping with the fury of two WAC sergeants who were taking an extension course in psychology and had been given a psychological examination. These bright young women, who did well in the course generally, spent a good 30 minutes berating their instructor over the figure analogies test in the battery. It involved seeing relations among abstract figures. To them, this appeared a trivial, totally unfair exercise in dealing with wiggly lines that had no meaning. They did not accept the test and could hardly have done themselves full justice on it. Others have reported that women reject such testing more than men do. The sex difference in achievement on such tests is substantial and may be accounted for, at least partially, by the lack of acceptance among women of these tests.

One step closer to the elementary school is the doctoral study by Machover in which he found that delinquent boys fell farthest below the norms of their nondeviant contemporaries on tests of spatial relations and nonverbal reasoning of the sort described in the two previous illustrations. They had been given these tests in an effort to appraise their mental ability, free of the influence of the cultural and educational factors involved in tests of reading, vocabulary, and arithmetic. What seem to be even more deeply ingrained by cultural experience are attitudes toward intrinsically "meaningless" or irrelevant

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abstract exercises. The more hopeful type of nonverbal test appears to be one based on pictures. Pictures are meaningful and are accepted as such.

Let us now discuss the factors affecting test results in terms of the pupil, the teacher, the immediate situation, and the broader situation in which the testing takes place.

The Pupil and Testing

How does the pupil approach testing? It is certainly not true that each child sits eager-eyed waiting for his teacher to give him the opportunity to show what he can do on a test, proceeds immediately and efficiently with each task set before him, and puts his best foot forward on each and every occasion. Many factors affect his acceptance of testing.

For one thing, his age and maturity affect the period over which the pupil may be expected to give full attention. Standardized tests take attention span into account. The teacher is well advised to give a test at more than one sitting if the test directions permit. Unless the class is obviously more mature than most, it is best to use the maximum number of sittings proposed.

Particularly at early ages, many children are easily distracted. A bird flying past the window, the backfire of a passing truck, the dropping of a pencil will distract many a child and prevent his doing himself justice. Someone entering the testing room or—perish the thought—a schoolwide announcement over the P.A. system is particularly serious. Most test publishers offer signs to hang on the doors of rooms where testing is in progress. It is also essential to follow directions specifying that testing is to be done in groups of a certain size in order to control distraction and assure that pupils master instructions before they begin.

The factors of limited attention span and distractibility make it virtually impossible to be sure that primary grade children have shown their real ability on a group test of mental ability. This is true of all group testing at this level. It is a less serious consideration in testing readiness or reading progress because these measures have a limited objective of predicting success in immediate learning and are only part of the evidence used by the teacher in planning instruction. It is more serious with group tests of general mental ability, with their inevitable IQ's, because they imply prediction over a longer range of time and undependability of individual performance can have pernicious effects.

An individual test, on the other hand, allows the skilled examiner to so adapt the test and the testing situation to the individual child that we can insure his acceptance of the test as fair, appropriate, even enjoyable, or note rather confidently that such acceptance did not prevail and that the test interpretation must be qualified. In group testing, our goal can only be to establish the best conditions for group work, with only that attention to individuals which is possible in a classroom group, and then trust that an individual child's acceptance of the test reflects his learning capacity and/or working knowledge in a classroom group.

Test directions are crucial. The examinee must understand what he is to do and we must impose no unnecessary hazards. Tests for young children commonly provide for reading aloud the directions, if not the questions themselves. One may *not*, of course, read a standardized test aloud unless the instructions so specify, but this restriction happily does not apply to classroom testing. In testing third-graders who have been taking a science course organized about an educational television program, we regularly instruct teachers to read the questions and alternative answers aloud *twice* before the pupils underline the correct answer. We must use words children understand but cannot read independently if we are to test important outcomes. Teachers readily learn to avoid pauses, inflections, or involuntary facial expressions that reveal the correct answer.

Reading looms as so large a factor in many standardized tests that the question arises of whether each part is just another test of reading rather than of the skill or knowledge area designated in the title. Because they make such a heavy demand on reading, many school systems do not use standardized achievement tests below the third or fourth grade, except in reading.

At higher grade levels, reading continues to present a problem in evaluation of achievement. We often say that reading is essential in arithmetic because the pupil must be able to read and interpret "word" problems. We forget it is we who create written textbooks, write problems on the board, and give standardized tests with written problems, whereas many of life's problems spring from concrete materials, oral questions, or numerical data as such.

Much can be done by the alert teacher to reduce the reading complication in classroom testing, but even standardized testing can be adapted to pupils' reading levels. Achievement test batteries come at several levels—primary, elementary, intermediate, advanced—and can be given to children in groups at their reading level. One of the newer series has attacked this problem directly by offering tests at all levels with the same instructions, same number of questions, and same time limits. Tests at different levels in this series can thus be given by the teachers in the regular classes. But any test battery can be used similarly if the children are grouped by reading level. Some may question the comparability of scores obtained by such adaptations, but it is certainly true in the individual case that more useful information can be obtained by testing at a child's reading level than by letting him fall down on a test he can hardly read. For that matter, a case can be made for the fact that a child may obtain a meaninglessly high score by chance marking on a test above his level simply because the score scale for the advanced test does not extend down to the individual's true level.

The problem of cheating on tests arises here. Although it has always been with us, cheating presents a new face now that we encourage group work on many projects. We owe it to our children to clarify this distinction between working together for group purposes and working separately for individual mastery. So far as possible, we should make it easy to work singly and difficult to "copy" when we want individual mastery. Adapting testing to a level commensurate with a pupil's competence will simplify his learning the habit of working for himself.

The Teacher and Testing

Through all these discussions of testing runs a thread of insistence that testing must have as a central purpose helping teachers help children to learn. The teacher must perceive testing in this framework if he is to convey its purpose to the pupils and if the testing program is thereby to become an integral part of the instructional program, accepted by teachers and pupils alike. No matter how carefully other desirable practices in the use of tests are followed, they will fail in their effectiveness if testing is not seen as a means of helping the teacher do better what he must do anyway—teach. This sense of purpose and usefulness in testing does not require an elaborate build-up, but it does require some preparation of pupils by a simple statement at their level of understanding, preferably the day before the test. Use of test results to help the pupil help himself in grade after grade will make the acceptance of testing a matter of habitual good morale.

The administrator, too, must accept testing as an aid to teaching. Many of us argue that this intention is most clearly conveyed by annual fall testing of achievement, which provides up-to-date information about a class when the pupils are new to the teacher. No evaluation of the teaching can be inferred in testing at this point. Additional testing at other times may be optional or, if uniform, may be justified to obtain helpful information before instruction begins in a specific area.

The teacher's use of classroom tests needs to have this same purpose of helping to learn. Highly competitive grading procedures and constant praise of outstanding achievers (usually the same ones) need to give way to more individualized approaches. Testing at the end of a unit thus becomes a means of ascertaining what group and individual reteaching is needed, as well as ascertaining what has been learned. Cheating then loses its motive.

This morale factor becomes particularly important in appraising personal-social factors. Habitual use of tests and other evaluation devices to help pupils help themselves is the best assurance that the twin sources of undependability—distortion and indifference—can be controlled. It is obvious that measures of interest, personality, attitudes, or sociometric choice can be answered in such a way as to present a false picture of one's feelings which may serve the purpose of winning approval by the teacher. Where there are no right answers in the sense that achievement tests require, but only matters of choice, the pupil may give answers he thinks are "wanted." If he is used to having results used confidentially and helpfully, he will respond in a normal way, neither presenting calculated answers nor irresponsibly marking meaningless choices.

A corollary of the use of tests to help pupils help themselves is a voluntary limitation on the number of tests used, so that pupils do not get the feeling of being overtested "guinea pigs." Each school administrator and teacher must be

the judge of when a feeling of overtesting is in prospect. Purposefulness in all testing is the best controlling factor, but the climate of acceptance needs to be watched since loss of acceptance of testing is a matter of serious concern and may prove very difficult to correct.

A word about the tasks of giving and scoring tests and recording the results. Acceptance of testing for its helpfulness by teachers and pupils is the basic guarantee of dependable results, but a sense of concern for precision needs to be developed. Failure to maintain testing conditions specified in a test manual can destroy the usefulness of the results. No help may be given students beyond that specified, nor may time limits be disregarded if virtually all or none of the pupils seem to have finished. Test publishers go to great lengths to make directions so clear that no further help is required after work begins. They are equally careful to set time limits so the great majority of appropriate examinees will finish each test or reach the limit of their ability before time is called. If the test appears too difficult (long) or too easy, it is better to consider giving a more elementary or more advanced test.

Scoring is a chore, no doubt of it. But incorrect scores are serious if they are given any weight in determining immediate assignments or instruction, and even more serious if they are used as "cold facts" some time later. In most schools, it is desirable to use hand-scored tests to avoid the pupils' having to cross-reference between test questions and answer spaces. Local studies may reveal that separate answer sheets can be used as early as fourth grade with no disadvantage, but this will not be true generally. It is best to accept hand-scoring as a chore necessary to afford pupils the best chance to show their true competence, and then organize for efficient, cheerful scoring.

Recording test results requires clerical precision and checking. It may be delegated, but there is much to be said for the interested party, the teacher, attending to this, too. Class record sheets that come with published tests or local adaptations can reduce the chore to a minimum. Plotting individual scores on pupil profiles should reveal strengths and weaknesses that might be overlooked. In keeping with the concept of helping pupils help themselves, pupils may be enlisted to draw their own profiles and thus understand better the progress they are making.

The Test Situation

We have mentioned the need for advance notice of testing and a general atmosphere of understood purpose to produce an acceptance of testing. Good lighting, reasonable comfort and work space, and uninterrupted working time are also essential. A few other points may be made.

Early in the history of standardized testing, there was considerable concern over the effect on tested achievement of such factors as health, emotion, and even time of day. There seems to be only a minimum of significant observations to pass on. The only time of day to be avoided is after eating a heavy lunch or after vigorous exercise. There appears to be no evidence to support the idea that the best time is at the start of the day "when everyone's fresh." A little better is after everyone is "in the groove"—anytime a normal atmosphere of study purpose has developed.

"Not feeling well" is generally unimportant, not because poor physical condition is unimportant, but because reported poor immediate health requires verification of cause. We all have some anxiety about taking a test, as we do about speaking in public. It is now generally accepted that it is natural and even desirable to feel some concern about a public talk; lack of it may indicate inadequate preparation. In the same way, studies by Sarason and others show that moderate test anxiety is characteristic of our best achievers and is to be expected in all. Serious anxiety distracts, and it increases as a test is perceived to be more difficult. This argues again for setting each pupil the standardized test that fits his level of competence. Anxiety that overruns normal symptoms of uneasiness calls for case study to reach and cope with the basic causes.

It should hardly be necessary to advise against testing when exciting events are in prospect. Holding children overtime at lunch or the end of the day, or testing the day school closes for a holiday, the day of an important game or early dismissal to visit the zoo, or on occasions marked by news of a tragic event will generally affect so many pupils' test performance adversely that testing is inadvisable. Similar circumstances affecting an individual would warrant rescheduling his test.

The Broader Social Background

Factors of socio-economic status, school expenditure, school size, ethnic group, section of

country, and urban-rural status have been found to be associated with test performance in elementary schools. The underlying factors are often hard to find. The perennial question of the relative importance of heredity and environment virtually defies solution. Favorable heredity and environment tend to go together, as do unfavorable heredity and environment. Individuals are found in all environments who attain great heights; some from even the most favored areas wind up in lives of crime and dissipation. What useful generalizations are available?

Socio-economic status of the patrons of a school is probably the most central factor. School expenditures are dependent on it in many communities and the other factors are at least complicated by its operation. What is generally found associated with socio-economic status is an attitude toward schools and schooling which affects not merely financial support of schools, but also the quality of English spoken in the home and the neighborhood; the attention given to learning to read, including the provision of reading matter in the home; the emphasis on study and provision for both time and place for study; stability of home arrangements; the respect accorded learning and learned persons; and the expectation of higher education.

The basic community attitudes that affect achievement should be dealt with directly. Children from underprivileged neighborhoods will tend to be even more retarded educationally than they are mentally, but this does not suggest allowing for such retardation. Rather, the challenge is, through every promotional program possible and special educational opportunities, to interest the parents in helping their children as they have never done before. Relating present to past achievement sets goals of modest improvement that can be steadily sought. The same approach can save the favored areas from settled smugness or feverish effort and pressure based on impractical, perfectionistic goals.

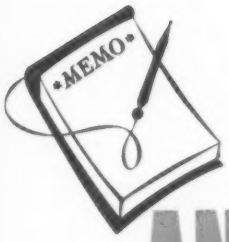
Ethnic differences often provoke fruitless argument and unprofitable speculation. The concomitants of socio-economic status that were enumerated above are generally associated with ethnic differences on achievement and mental ability tests. The ethnic differences are real on the average, but individual excellence in generally depressed ethnic groups is usually explicable in terms of special circumstances. Statistical data might suggest that a correction should be made to aptitude scores of children from underprivileged groups to take account of disadvantages they suffer. The adjustment, however, would overcorrect for those in the underprivileged ethnic group who did not suffer the advantages commonly associated with their group, while leaving uncorrected the score of the individual from the generally favored ethnic group who was himself underprivileged.

Put another way, the variations in achievement *within* ethnic groups are far greater than the average differences *between* the groups. In discussing Negro-white differences, a Negro professor made his point dramatically by saying that at his college they were not interested in whether a student could do "culture-fair" arithmetic but rather in whether he could do arithmetic.

Findings of regional differences in general achievement are based to a considerable extent on differences in proportions of urban and rural pupils. Urban pupils do better. They have larger schools offering better instruction by better paid teachers. Again, neither regional norms nor separate norms for urban and rural schools are to be recommended. Regional norms simply favor the cities in largely rural areas and discriminate against rural children in heavily urban areas.

Local norms based on current achievement, with improvement over past performance as the goal, are recommended. The individual may well be compared with his immediate peers, as well as with a still hypothetical national norm group.

To return to our concept of acceptance of testing, it is fair to say that urban and suburban children and those from favored socio-economic neighborhoods accept testing more readily than do rural or underprivileged children. Tests are a part of their culture, are respected by their parents as useful objective supplements to teacher judgment based on recitations and other noncomparable evidence from special projects and work products. Tests are like the parlor games that are played in their circle at social gatherings. However, standardized tests are becoming a well-established feature of all schooling and we may fairly hope they reflect goals increasingly accepted by all sectors of the school population. Testing used to help teachers help children help themselves is the keystone.



ANALYZING Test Results

ELIZABETH HAGEN

STANDARDIZED tests are given to obtain information about students. The information they provide must be used and used constructively to improve the teaching-learning situation or else the tests should not be given. The classroom teacher is the critical person in the constructive use of test results. He must be able to analyze the test results for a group or an individual and interpret the scores in terms of what they mean for teaching the group or the individual.

Analyzing What the Test Measures

In order to interpret the scores from a test or series of tests, the teacher must know what the tests measure. This point may seem obvious, but many classroom teachers do not know specifically what the tests they use are measuring. One cannot depend upon the title to tell what is being measured by the test. For example, reading comprehension tests differ markedly from each other both in the range of reading skills which they measure and the emphasis they give to the different reading skills.

The first thing that a classroom teacher should do is to analyze each test carefully both for the content being measured and the mental processes required of the examinee to answer the items. Many of the tests published since 1955 provide an analysis of the content in the manuals written for the classroom teacher. For example, the *Iowa Test of Basic Skills* and the *Sequential Test of Educational Progress* (STEP) provide an item by item analysis of the skills being measured and classify and categorize the items for easy analysis. However, the classroom teacher should check the test publisher's analysis by taking the test himself. He should make a note of any items that are inappropriate for his students. He should also note the kinds of skills or content not being tested so he will be aware of the limitations that must be put on his interpretation of the scores.

Only when the classroom teacher knows thoroughly the tests that his class has taken is he prepared to work with the test results. However, before he can organize the scores in some systematic way as a basis for analysis, the teacher must know what kind of scores he has.

Norms

Since the raw score (the number of correct answers) on a test has no direct meaning in and of itself, the raw scores on a standardized test are given meaning by comparing them to the performance of a standard reference group. This standard reference group is called a norm group and the score obtained by such a comparison is called a norm.

A norm is *merely a description* of the performance of a certain group such as a sample of fifth-grade students throughout the United States; it is *not* a standard of achievement. For example, on the arithmetic computation sub-test of the *Stanford Achievement Test,* the norm for students at the beginning of the fifth grade is 21 items correct out of a total of 45 items. However, the standard of achievement that one would like to reach is 100 percent accuracy in computation. One cannot even say that the norm, particularly a national norm, represents a desirable level of achievement. A national norm group is made up of bright, average, and dull students drawn from outstanding, average, and poor schools, subjected to good, poor, and indifferent teaching. With such a heterogeneous group, one can scarcely be satisfied with the performance of the norm group when he knows that improvements in curriculum and teaching could vastly improve performance.

Three kinds of norms are usually provided for standardized tests at the elementary school level.

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These are age norms, grade norms, and percentile norms.

Age norms: Strictly speaking, age norms are not relevant to achievement test results because progress in school achievement does *not* depend upon chronological age, but upon exposure to the learning situation in the classroom. For this reason, age norms should not be used for achievement tests.

Grade norms: The grade norm is the most widely used and widely abused type of norm at the elementary school level. Although it is useful, the grade norm is so frequently misinterpreted that one wishes it had never been used. A grade norm merely describes the typical performance of a specified grade group. For example, on the paragraph meaning sub-test of the *Stanford Achievement Test, Intermediate Battery,* the median score for students in the fifth month of the fifth grade in the normative sample was 30 items right; therefore, a score of 30 items right was assigned a grade equivalent score of 5.5. This means that one-half of the students in the normative sample who were in grade 5.5 scored higher than 30 and one-half scored lower than 30. Since the norm is usually defined as a median, in an unselected sample of students, one-half must fall above the norm and one-half must fall below. One can see, then, the ridiculousness of the statement that everyone in a class should be "up to the norm."

Another kind of misinterpretation of grade norms occurs with grade-equivalent scores that deviate markedly from the grade placement of the individual student. For example, consider the student in the fifth month of the fifth grade who obtains a grade-equivalent score of 11.7 on the paragraph meaning sub-test of the *Stanford Achievement Test, Intermediate Battery*. One frequently hears classroom teachers say that this student is reading at a high eleventh-grade level. This is nonsense. Eleventh-grade students have never taken this particular test. An extreme score such as this means only that this particular student is a very outstanding reader in comparison to the typical student in the fifth month of the fifth grade.

There is one other basic defect in grade norms that causes trouble in interpretation—grade norms on different tests do *not* have the same meaning. Look at the following scores for a student who took the *Stanford Achievement Test* in the second month of the fifth grade:

Test	Grade-Equivalent Score
Paragraph Meaning	7.4
Word Meaning	7.0
Spelling	6.5
Language	7.7
Arithmetic Reasoning	6.6
Arithmetic Computation	6.1

Looking at the set of grade-equivalent scores, one would say that the student had performed best in language and poorest in arithmetic computation. However, every one of these scores equals or exceeds the performance of 90 percent of the norm sample at that particular grade level. In other words, the student performed equally well on all the tests in spite of the fact that the grade-equivalent scores are *not* the same. This phenomenon is *not* caused by a defect in this particular test or a defect in norming; it is due to the differences in variability of performance of students on the tests. There is a much greater spread of scores among students in the same class in reading and language than there is in arithmetic and spelling because these last two are more closely tied to the curriculum of the school than is reading.

Percentile norms: The lack of equivalence in meaning of grade scores from test to test is serious when one is trying to compare scores for a group or an individual on different tests. For this reason, percentile norms are preferable in most cases. A percentile tells the percentage of a group that falls at or below a particular score. For example, if a student obtains a raw score of 15 on a test and this is equivalent to a percentile rank of 20, it means that 20 percent of the norm group scored lower than 15 and 80 percent obtained scores higher than 15. The percentile norm has the additional advantage of keeping the reference point where it belongs—in a group of which the individual can be considered to be a member. That is, a fifth-grade student is compared with other fifth-grade students, not with sixth-grade or fourth-grade students.

The percentile norm would be an ideal norm except for one defect: It does not have equal units all along the scale. An increase of five percentile points from the 50th percentile to the 55th percentile does *not* represent the same increment in score as an increase in five percentile points from

the 90th to the 95th percentile. This defect in percentile norms is most troublesome when one wants to measure growth or increase in achievement from year to year.

Standard Error

Up to this point, we have been concerned with two kinds of things that the classroom teacher should thoroughly understand before he attempts to analyze and interpret test scores: 1) the test itself; and 2) the kind of score that is being used to report test results. There is one additional point that the classroom teacher should keep in mind as he analyzes and interprets test scores. He should remember that when we give a test to an individual or a group of individuals we are getting an estimate of the student's performance on the items on that particular test. From this estimate, we then make an inference about the ability of the student in the area being measured by the test.

For example, suppose we had given a fourth-grade class the *Otis Quick-Scoring Mental Ability Test, Beta.* Each of the students taking the test would mark his answers in the appropriate place; then, the number of right answers that the student had marked would be counted. The number of right answers would be the individual's score, which we would call his mental ability. But the score itself is *not* the mental ability. It is a *record* of a *sample* of behavior. Any judgment regarding mental ability is an inference based on the evidence provided by the number of correct answers on this particular *sample* of behavior. In other words, we have an estimate of his performance on a series of items purportedly measuring mental ability. This estimate is *not* absolutely accurate; it contains a certain amount of error called the error of measurement.

When a classroom teacher is looking at a set of scores for an individual, he must always allow for this error of measurement. He can never consider a score obtained by a student as an unvarying point on a scale but must, instead, always think of it as a band. Suppose for example, that on the Otis test mentioned previously, an individual obtained a score that yielded him an IQ of 115 for his performance on that test at that particular time. The manual for the Otis test states that the standard error of measurement is 4 IQ points. The classroom teacher should multiply the standard error by two, which would give 8 IQ points, and think of that individual as most probably having an IQ on that test of somewhere between 107 and 123. And this is as accurate as he can be in estimating that individual's mental ability on the Otis test.

The standard error of measurement varies from test to test. The manuals for the tests usually give the standard error but, as a rough rule-of-thumb, it would be well for the teacher to estimate intelligence test score bands by adding 10 to the obtained intelligence quotient and subtracting 10 from the obtained intelligence quotient. For example, a student obtains an IQ of 103 on X intelligence test. The teacher should think of the student as having a score most probably between 93 and 113 on X intelligence test. On an achievement test when using grade-equivalent scores, a rough guide is to allow a full grade below and above the obtained score. If a student had been given a reading comprehension test and had obtained a grade score of 4.7, the teacher should think of the score as being most probably somewhere between 3.7 and 5.7. This should make the teacher very wary of interpreting small differences between scores on different tests for an individual student.

When a classroom teacher is working with average scores for a group of individuals, the error of measurement is smaller than for an individual. The reason for this is that the errors in measurement are due to chance factors; in some instances, the error of measurement will make a score for an individual higher than it should be and in other instances, it will make the score lower than it should be. When scores are averaged over a large number of individuals, these chance effects cancel each other so that the average score for a group has a smaller standard error than does the score for an individual. How much error there is in an average score for a group depends upon the number of people in the group and other factors.

Now let us suppose that the classroom teacher understands thoroughly all of the things previously mentioned. How does he organize the test data so he can obtain a better understanding of the students as a group and as individuals? The kinds of tabulations and analyses of data that the teacher makes are, of course, dependent upon the kinds of questions he is trying to answer. Although one probably cannot foresee all of the questions a

classroom teacher is likely to ask about a set of test data, there are certain questions that are commonly asked and these will be discussed here.

Average Scores Misleading

Let us assume that the classroom teacher has been given for the 30 students in his class an alphabetical listing of scores on a verbal group intelligence test and an achievement battery that includes tests of reading comprehension, vocabulary, spelling, language usage, arithmetic computation, arithmetic reasoning, and study skills. If the list also contains average battery scores for all tests combined or average scores obtained by averaging two or more tests—for example, an average arithmetic score obtained by combining the arithmetic computation score and arithmetic reasoning score—the teacher can ignore them since this type of score can be misleading. Consider the following students in grade 4.3 who obtained a composite average grade-equivalent score of 4.6 on the battery of achievement tests:

Test	Student 1	Student 2	Student 3
Reading Comprehension	2.9	6.1	4.8
Vocabulary	3.1	6.5	4.6
Language Usage	4.5	5.8	4.5
Spelling	4.8	5.1	4.3
Arithmetic Computation	6.0	3.2	4.4
Arithmetic Reasoning	6.5	2.0	4.9
Study Skills	4.4	3.5	4.7
Composite Battery Score	4.6	4.6	4.6

On the basis of the composite average battery score, the three students appear to be achieving at the same level and appear to be very much alike. However, a look at the scores for each student on the separate tests shows that these students are quite different and need quite different instructional programs. Student 1 shows a definite weakness in reading and vocabulary and definite strengths in arithmetic computation and arithmetic reasoning. On the other hand, student 2 shows quite definite strengths in the verbal areas of reading, vocabulary, language usage, and spelling and very definite weaknesses in the quantitative areas of arithmetic computation and arithmetic reasoning. Student 3 shows no outstanding strengths or weaknesses but is an even performer on all of the tests. The use of an average score for all the tests obscures these differences among students; therefore, it is advisable for routine classroom use to ignore the average scores and use only the scores on the individual tests.

Scanning for Inconsistencies

When a classroom teacher receives a list of scores for students in his class, the first thing he should do is scan the scores for each individual pupil to see if they are internally consistent and check the scores of each individual pupil against previous test scores or other information about the student. This scanning will avoid the necessity of trying to find explanations for test performances that are internally inconsistent or are inconsistent with other data on the individual when the inconsistency may very well be due to clerical errors in scoring the test, errors in using a table to convert scores, or errors in recording the results. Test papers scored by teachers contain a large number of errors in scoring—some quite substantial. Test papers scored by outside agencies or by electronic machines can also contain errors.

To illustrate what is meant by internal inconsistencies or inconsistencies with other data, let us consider an example. Suppose you are a sixth-grade teacher and have received the following scores for an individual student in the third month of the sixth grade (6.3):

Test	Score
Verbal IQ	85
Reading Comprehension	10.6
Vocabulary	10.7
Language Usage	6.6
Spelling	6.8
Arithmetic Computation	10.4
Arithmetic Reasoning	11.7
Study Skills	10.5

Before you blithely label the student as an "overachiever," it would be well to check the intelligence test to determine whether the test has been scored accurately and the intelligence quotient has been computed accurately. The intelligence test score is singled out for attention in this case because the achievement test scores are consistently high. If you can find no error in the scoring of the intelligence test or in the computation of the intelligence quotient, check against previous test data on the student. Suppose this student had been given the same intelligence test

when he was in the fourth grade and had obtained an intelligence quotient of 120. The difference of 35 points between the fourth-grade testing and the sixth-grade testing is too large to attribute to error of measurement and the student should be retested. Test scores that are inconsistent or out-of-line with other evidence on the individual should *never* be entered on a permanent record card until their accuracy has been established.

Analyzing the Total Class: Use of Medians

After eliminating the inconsistent cases from consideration in the analysis, the classroom teacher is ready to organize the class data in order to obtain answers to his questions. The first question to be answered is usually, "How did the class on the whole perform on each of these tests?" To answer this question, the teacher should tabulate or list the scores on each test from the highest score to the lowest score. Then for each set of scores, he should determine the median score—the score which divides the class in half.

Having computed the median for each of the tests, the teacher is ready to look at the pattern of the medians in order to obtain an answer to the question, "What are the strong and weak points of the class as a whole?" In looking for patterns of performance, the classroom teacher should group median scores for related areas. For the achievement battery that we are using as an example, the medians for reading comprehension and vocabulary should be examined together; the medians for spelling and language usage should be looked at as a unit; the medians for arithmetic computation and arithmetic reasoning should be looked at as a unit; then, the medians for study skills. This type of pattern analysis needs to be done in order to differentiate a class disability from an individual disability. To illustrate, let us look at the following example showing medians for a fourth-grade class tested in November (4.3):

Test	Class Median
Verbal IQ	105
Reading Comprehension	5.1
Vocabulary	4.8
Language Usage	4.5
Spelling	4.2
Arithmetic Computation	3.0
Arithmetic Reasoning	2.7
Study Skills	2.7

This particular class shows strength in the verbal-language areas and weaknesses in the quantitative and study skills areas. Since the class shows a very marked weakness in the quantitative and study skills tests, the teacher might well ask the question, "Why are these students performing so poorly in these areas?" To obtain more specific information about what the class does and does not know in these areas, the teacher should make a sample item analysis of the arithmetic and study skills tests.

Item Analysis

In order to make an item analysis of the tests, the teacher needs the answer sheets of the students. With the answer sheets at hand, the teacher can make a tally of the number of correct answers, the number of wrong answers, and the number of omitted answers to each test question. Then, he should look at the items that have been marked correct and incorrect by a large proportion of the class.

In the school from which these data were taken, such an item analysis was made and showed three things: 1) the students on the whole were slow workers; a large proportion of students had never reached the last 20 items on the test; 2) the students tended to make mistakes on simple addition or subtraction items that were written on a line instead of under each other; most of the students missed items involving the use of decimals unless they were problems dealing with money. The teacher investigated the previous educational experiences of the students in arithmetic and found that accuracy had been emphasized; that the students had always been given their addition and subtraction problems in the same form; and that problems involving decimals other than money were a part of the curriculum for the last half of the fourth grade. With this information, the teacher could do better planning for the class in arithmetic than he could with just the scores alone.

Performance and Expectancy

When the teacher is looking at the median scores for his class, he frequently asks, "Are these scores what they should be in light of the ability level of the class?" This question deals with the relationship between obtained scores and expected scores and poses a sticky problem. Too frequently, the classroom teacher tries to make a direct com-

parison between intelligence test scores and achievement test scores. However, both scores have errors in them and the correlation between intelligence and achievement is not perfect.

The level of achievement in a group depends not only upon the scholastic ability level of the group but also upon the educational experiences to which it has been exposed and the cultural backgrounds of the individuals making up the group. The judgment of whether a group is performing at the expected level can be made only if median scores for groups of like-level of ability are available for comparison. If the median level of scholastic ability for the group is average, if the median socio-economic level is about at the average for the nation as a whole, and if the curricular emphasis in the school is like schools in the United States as a whole, then and only then can the national norm be used as a reference point for judging whether the group is performing at expectancy. If the classroom group deviates from the national group on *any one* of these points, then the national norm cannot be used to judge whether a particular group is performing at expectancy, and local expectancy charts must be set up for this purpose.

Identifying Number of Achievement Levels

The last question that a teacher is likely to ask about the group as a whole is, "How many distinct levels of achievement do I have in each of the areas covered by the tests?" Again, it is better if the classroom teacher looks at patterns of scores.

If the teacher has arranged the scores for each test from high to low and computed medians for each test, he can then compute the 25th percentile and 75th percentile on each test. These three score points will divide the scores on each test into four parts: the lowest quarter, those falling below the 25th percentile; the second quarter, those falling between the 25th percentile and the median; the third quarter, those falling between the median and the 75th percentile; and the fourth quarter, those falling above the 75th percentile. He can use some simple designation for each quarter such as L (low) for lowest quarter; LA (low average) for second quarter; HA (high average) for the third quarter; and H (high) for the fourth quarter. The teacher can then list the students alphabetically, and rule off columns for each test and enter the appropriate symbol for each student for each test. The record would look something like this:

Student	Int.	Read. Comp.	Voc.	Lang. Usage	Spell.	Arith. Comp.	Arith. Reas.
John A	H	LA	LA	HA	LA	H	H
Anne B	LA	LA	LA	LA	HA	L	L

A record such as this not only helps the teacher to see how many groups he needs, but also helps him see the pattern of scores for the individual students and locate students who need enriched programs, remedial work, or a modified program.

Interpreting the Individual's Scores

The analyses that have been proposed not only will give the teacher a picture of the group as a whole, but also will serve as a point of reference for interpreting the scores of an individual student. There are two questions concerning individual students that are frequently asked: 1) Is the student performing at expectancy according to his ability level? and 2) How much growth or progress has the student made since the last testing? Both of these questions are difficult for the classroom teacher to answer because they involve rather sophisticated statistical procedures. In both instances, we are dealing with scores that are highly related to each other and have a certain amount of error of measurement. When we make these comparisons, we are dealing with the difference between two scores and these differences are less reliable than either of the individual scores.

Let us consider the question of how well a student's performance conforms to the level of performance expected of him. The classroom teacher needs outside help in order to determine levels of expectancy of different ability levels. In large systems, the school as a whole can help the teacher by preparing expectancy charts. To do this, one needs the intelligence test scores and the achievement test scores for each individual. A large number of students is also required in order for the expectancy chart to be stable. For each achievement test, a bivariate or two-way distribution of the achievement test scores against intelligence test scores should be made. An example of a basic expectancy chart is shown in the table on the top of page 17.

EXPECTANCY TABLE FOR END OF 3RD GRADE ON METROPOLITAN READING TEST ACCORDING TO OTIS IQ

	Reading Grade Score on Metropolitan Reading Test															
Otis IQ	1.5 to 1.9	2.0 to 2.4	2.5 to 2.9	3.0 to 3.4	3.5 to 3.9	4.0 to 4.4	4.5 to 4.9	5.0 to 5.4	5.5 to 5.9	6.0 to 6.4	6.5 to 6.9	7.0 to 7.4	7.5 to 7.9	8.0 to 8.4	8.5 to 8.9	9.0 to 9.4	Total
120 & above	0	1	4	4	10	19	14	7	4	3	2	0	1	1	1	2	73
110–119	0	2	5	23	19	27	21	8	7	4	3	0	2	1	0	0	122
100–109	0	2	19	21	39	26	21	21	5	5	0	1	2	0	0	0	162
90–99	1	5	25	25	26	24	12	6	5	1							130
89 & below	1	5	19	17	10	4	2	2									60

The basic chart is made up with intelligence test scores (in broad groupings) on one axis and the achievement test scores on the other axis. Each student is tallied in the box that correctly identifies him as to intelligence test score and achievement test score. For example, a student who obtained an Otis IQ of 105 and a reading grade score of 4.7 would be tallied in row three (IQ grouping 100-109), column seven (reading grade score 4.5 to 4.9).

Once the basic expectancy chart has been prepared, one can compute the 25th percentile, the median, and 75th percentile for each row of intelligence test scores. The decision about what represents the expected level of achievement is a somewhat arbitrary one. For this example, expectancy for any intelligence level was set as the middle 50 percent, below expectancy was set as the lowest 25 percent, and above expectancy was set as the highest 25 percent.

The teachers in the school where this expectancy chart was made were given the following summary table to use in interpreting individual cases:

SUMMARY TABLE

Summary	IQ's 120+	IQ's 110–119	IQ's 100–109	IQ's 90–99	IQ's 89 & below
Below Expectancy	3.9 & below	3.4 & below	3.4 & below	3.0 & below	2.6 & below
At Expectancy	4.0–5.1	3.5–4.8	3.5–4.8	3.1–4.3	2.7–3.6
Above Expectancy	5.2 & above	4.9 & above	4.9 & above	4.4 & above	3.7 & above

The question of how much growth an individual student has made since the last testing cannot be answered by simply subtracting the two scores. About the best judgment a teacher can make is in terms of whether a student is maintaining his relative position in the group. If he is, his progress is satisfactory. If he has improved his relative position, he has made more progress than the average child. If his relative position is lower, he has made less progress.

The analyses suggested in this article may seem to be involved and time consuming, but they represent a wise use of time. If the classroom teacher, with the help of others in the school, will do them, he will have information about teaching problems of the coming year, about areas in which emphasis in teaching is needed, and about individuals who need special kinds of attention. With these types of information, the classroom teacher will be better able to provide appropriate learning experiences for both the total class and individual children.

USING TEST RESULTS

to make decisions about Pupil Placement, Grouping, and Promotion

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ALL schools are faced with a host of complex problems in the placement, grouping, and promotion of pupils. Each child is a unique individual in his capacities, achievements, interests, and other characteristics. A meaningful program of instruction must take account of individual differences in its organizational pattern as well as its content if it is to provide all children with opportunities appropriate to their capacities and needs. Some form of classification or grouping—whether by life age, level of educational attainment, mental maturity, or some combination of these and other traits—is inevitable. The basic question is not whether to group, but how.

Schools vary widely in their answers to the question of how to group and clasify pupils. All of them share a need for certain types of information as a basis for decision making in a number of major areas.

Obtaining a Variety of Information

Information about the traits and characteristics of a pupil at any specific time can be classified according to the period in his life to which it applies—past, present, or future. This is as true when problems of placement, grouping, and promotion must be dealt with as when more general questions of instruction and guidance are to be answered. Many aspects of a pupil's present status can be assessed by the use of tests and various other tools and procedures. Appraisals of a pupil's past growth, development, learning, and environment contribute to an understanding of his present; dependence must here be placed on adequate cumulative records and on their transmittal with the pupil during his educational career. Present methods of dealing with the pupil are properly based on formal predictions and even informal estimates of his future through the use of data from both his past and his present. No one of these three aspects—past history, present status, and future probability—can be neglected.

When testing is considered in a broad sense, at least five measurable aspects of human traits and characteristics can be distinguished. These are home and social background and status, development and status in physical, in mental, and in personality characteristics, and behavioral changes resulting from learning.

Educators now look to the child's home, his father's occupation, his family's socio-economic status, and other factors in his background and present environment for some clues to his school behavior. The influences of the home, community, and other primarily sociological agencies during the child's early and most formative years are later reflected in his educational attitudes, interests, and potentialities. Home and occupational status scales in particular, but less formal indices also, can be used to appraise these backgrounds.

Physical characteristics and physical fitness of pupils are also of concern to the principal and teacher. Proficiencies in intellectual as well as manual skills are dependent on health and on physical and motor fitness. There are a number of measures that may be used in assessing these primarily physical factors—various medical and sensory tests, measures of body posture and body

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mechanics, cardiovascular tests, measures of strength and endurance, and easily administrable tests of physical and motor fitness themselves.

Three types of mental ability tests—for measuring mental ability broadly, for measuring special mental abilities or aptitudes, and for measuring multiaptitude or group factors of mental ability—reveal pupil traits that are directly reflected in classroom performance.

Attitudes, interests, and adjustments, evidenced particularly in social behavior, are also measurable. These aspects of what is often broadly referred to as personality are important determiners of a pupil's reactions to his educational experiences. Various self-report inventories and scales filled out by the pupil himself, as well as the more technical observational and projective techniques, are essential for pupil appraisal in this important area.

A pupil's behavior is modified not only by his school learning but also by his out-of-school learning. It is in the measurement of such behavior that achievement tests have their major significance. Achievement tests probably constitute the core, but by no means the sum total or even the major portion, of measurement and appraisal procedures useful in the classification, grouping, and promotion of pupils.

Establishment of Policies and Practices

Elementary schools differ widely in their policies and practices for handling problems of pupil placement, grouping, and promotion. Philosophical, psychological, experiential, practical, and even expediential considerations are variously reflected in these policies and practices. There are at least a few minimal areas of decision making in which agreements are necessary. Decisions in these areas must be made regularly or periodically in all schools. They affect practically every pupil in every school, whether the policies are clearly outlined in writing or are reflected less formally in the decisions of school officers. The listings below are not comprehensive, but they are representative of some major areas of decision-making. They are likely to be pertinent for most, but by no means for all, schools.

Policies necessarily provide guidelines for decision making concerning:

1. *The criteria for admitting pupils to the first grade:* What minimum entrance age, whether determined by state law, local option, or a combination of state and local policy, should be used in admitting children to Grade 1? What additional readiness factors—for example, health, physical fitness, and mental ability—should be used to supplement chronological age?

2. *The criteria for determining pupil readiness for reading:* Which common nontest factors—for example, age, sex, background, physical maturity, and interest in reading—should be used in deciding when a child is ready for formal reading? What tests in such areas as general intelligence, visual and auditory perception, oral English, and emotional adjustment should be used?

3. *The criteria for classifying special pupils:* Which among such bases as age, visual and auditory tests, speech tests, sensorimotor tests, medical examinations, and tests of mental ability, adjustment, and achievement should be used in classifying and assigning handicapped, gifted, mentally retarded, emotionally disturbed, and other special pupils to special rooms or special schools?

4. *The criteria for sectioning regular pupils:* Which of such bases as age, physical traits, interests, and results from physical fitness, mental ability, achievement, and adjustment tests should be used in assigning pupils to sections or classes within grades and to differentiated instructional groups within classes?

5. *The criteria for promoting pupils from grade to grade:* Which one base or what combination of common bases for promotion—grade standards, chronological age, social, intellectual, and other maturity indices—should be used in deciding upon pupil promotion? What teacher-made tests, standardized general achievement tests, physical fitness tests, adjustment inventories, observational techniques, attendance records, and other data should be used to supplement evidence contained in teacher reports to the home?

6. *The criteria for accelerating or retarding pupils:* What maximum number of years of acceleration or retardation and what preferred times in pupils' school careers should be used in making decisions? What additional factors, such as physical, social, emotional, and chronological age or maturity, should be used to supplement the types of tests and teacher reports to the home listed above?

Policies and practices can be outlined in at least these six areas to serve as general, although by no

means inflexible or rigid, guides to decision making. However, many special problems also arise which are ordinarily not covered by written policy statements and frequently apply to small numbers of pupils or even to one particular pupil. Questions often come up, for example, about the placement, grouping, and promotion of new pupils—especially transients who enter during the course of the school year; pupils out of step with the school's classification scheme; children of foreign birth; regular pupils who suffer long periods of illness; and other special types of pupils.

Additional problems concerning implementation of the policies and practices require attention. It must be specified who should ordinarily make each type of decision. What person or group of persons among the pupil's teacher, counselor, and parents and among the school principal, guidance director, psychologist, nurse, and physician should be involved? Expeditious methods of collecting, recording, collating, and interpreting data must be worked out to simplify and objectify each type of decision. Moreover, there are special situations—ungraded primary schools, team teaching, and other less common organizational plans—that may require particular consideration.

Major Areas of Decision Making

Problems involved in the classification and placement, in the grouping or sectioning, and in the promotion, acceleration, and retardation of pupils are so interwoven that the three areas of decision making are interrelated in many ways. The concept of readiness underlies them all, since pupils are typically assigned or promoted to grades and grouped in classes or sections of classes for which their readiness is judged to qualify them. Although this concept is often applied to school beginners and especially to reading, it is equally appropriate, though perhaps not so obviously, for higher grade levels and at least for such other subjects as arithmetic and language.

Readiness, in this broad sense, is usually envisioned in the modern school as a composite of many characteristics rather than as a separate and unitary index of potentiality. In this sense, it is measurable through a wide variety of tests and techniques rather than solely by the readiness tests proper and the diagnostic tests that most obviously measure preparedness for a new learning. Moreover, readiness should ordinarily be considered from the standpoint of the whole child, in terms of all of his needs, interests, and characteristics.

Classification: It is well known that grade placement has only approximate meaning. Pronounced differences in three significant respects—age, mental ability, and achievement—are found at all grade levels. Policies for admitting pupils to first grade account for a variation in chronological age from youngest to oldest of a year or more. Furthermore, in summarizing data from several sources, Cook showed that first-grade pupils vary by approximately four years in both mental age and educational achievement, while sixth-grade pupils vary by more than eight years in mental age and by from six to eight years in achievement in the major school subjects.[1] It is, consequently, difficult to realize but important to recognize that low achievers on the one hand and high achievers on the other have more in common with their low or high achieving counterparts in several adjacent grades, both lower and higher, than with average pupils in their own grades.[2]

Most schools obtain and accumulate a variety of test data and other objective information about individual pupils. When a school considers placement or even reclassification of one of its own pupils in a special school or special classroom, it should have many of the necessary data available for ready use. Results from mental ability and achievement tests and from physical and medical examinations are commonly found in the school records, as well as information concerning the pupil's home status, his developmental history, and his school career. Additional tests can be given as needed—sensory and sensorimotor tests, physical fitness tests, structured adjustment inventories and projective tests, and when necessary, special clinical and psychoanalytical tests. All of these data plus those further facts that may be sought out on special facets of the pupil's problems can then be organized informally but systematically or even integrated into a case study.

When pupils change schools or school districts, most schools send along comprehensive test results and other data, or what are believed to be their

1. Cook, Walter W. "Measurement in the Facilitation of Learning." *Educational Measurement.* Washington, D.C.: American Council on Education, 1951. p. 10-11.
2. *Ibid.*, p. 11-12.

most significant representations. Since many facts about the pupil's history cannot be recaptured, the new school must depend on personnel in the former school for transmitting many of the data necessary for his expeditious classification. It is always possible, of course, to supplement or confirm transmitted information by obtaining new evidence on the pupil's mental and educational status at the time of admission.

Grouping: There appears to be quite general agreement among principals and teachers that one of the first essentials to pupil welfare and good teaching is a well-conceived plan for the grouping of pupils. Since some form of grouping is inevitable, the question is how to group and what criteria to use. Any approach to decision making in this area should be based on a realization that homogeneity can be attained for only one or two closely related characteristics at a time and that so-called homogeneously grouped pupils are certain to differ very widely on uncontrolled but distinctly important traits. The problem seems to consist largely of grouping pupils in such a manner that teachers, supervisors, and administrators not only understand the need for, but also are able to provide, instructional materials and procedures appropriate to the wide range of pupil abilities and needs in a class or section.

Test results and other types of information can be used in grouping pupils into classes within a grade and in grouping them into sections within a class. Physical education is probably unique among school subjects in having several classification indices, involving sex, age, height, and weight variables, for grouping pupils at various educational levels. In other subject areas, life age, level of educational achievement, level of mental and social maturity, and even more complex criteria are variously used for placing together in one instructional group those pupils who supposedly can work and progress effectively together. Moreover, a class group, whether obtained by some such procedure or consisting of unsectioned pupils, can be subdivided into special groups according to the nature of the work at various times of the school day or week. Results from tests of mental ability and achievement and from inventories of reading, recreational, and other forms of interests are among the most significant data for use in establishing both types of groups.

Promotion: Although it is sometimes maintained that abandonment of the grade-standard theory of promotion and substitution of a policy of universal promotion results in an unusually great range of talent in the upper grades, there apparently is no justification for the belief. Otto and Estes concluded, in fact, that a high rate of retardation does not decrease variability in pupil achievement but that a higher promotion rate is accompanied by higher average levels of achievement and that repetition of grades seems to have no significant educational values for pupils.[3] These authors suggested that promotion policies should be based on adaptation of the school to the child, rather than on adaptation of the child to the school.

In any event, strong reliance on test results in making decisions about the promotion of pupils on a regular basis, or about their retardation or acceleration, would be dangerous. Again, as is true in placement and grouping, test results should be used to supplement other evidence, including teacher judgments. A good testing program should provide continuous information for teachers, principals, pupils, and parents to enable all concerned to keep informed about the pupil's progress. Many of the possible sources of conflict over promotion or nonpromotion can well be obviated through continuous understanding and communication between school personnel and parents.

Promotion policies vary widely among elementary schools. Some of those most widely used are the grade-standard or subject-standard plan, the continuous-promotion plan, and the uninterrupted-continuity plan. Such organizational plans as ungraded units, particularly in the primary grades, and multiple-track plans of advancement in the elementary grades, as well as possibilities of acceleration by doing extra work or taking extra courses, also pose their own special problems. The teacher, principal, superintendent, and the pupil and his parents are very much concerned with what is done. It is up to the teacher, together with the administrator and other faculty members, to gather as much evidence as possible to aid in decision making.

Used in conjunction with other data, test results can provide evidence needed in coming to a decision on many types of promotional problems.

3. Otto, Henry J., and Estes, Dwain M. "Accelerated and Retarded Progress." *Encyclopedia of Educational Research*. Third edition. New York: Macmillan Co., 1960. p. 8.

Evidence on pupil initiative, effort, personality, and other intangibles sometimes tends to indicate a higher degree of attainment, or perhaps even the contrary, than do achievement test results. It is often true, also, that results from different tests or from achievement tests and teacher marks are not in harmony. If there appears to be any real doubt for these or other reasons, more tests or different varieties of tests can be administered.

Example of Pupil Classification and Placement

Problems of pupil classification, grouping, and promotion are often highly complex and specialized. This is necessarily the case when background policies and practices differ widely from school to school and when great differences also exist among the three areas of decision making and among the pupils affected by the decisions. Any example of an actual case and of the bases on which a decision was made can, therefore, represent only a few of the aspects involved in handling these problems. The illustration below presents one type of problem, indicates some of the most important test results and other data, and outlines several possible solutions.

Situation: A pupil from a school which was on a semi-annual promotion basis sought admission in a school on an annual promotion basis. He came with his mother on March 15 and brought with him a sealed envelope which contained various types of information from his former school, including the following:

1. He was a Grade 5B pupil with a record of below-average achievement in his previous attendance, including that of the first six weeks in Grade 5.

2. Results from the *Standard Achievement Test,* administered the previous year when he was in the last half of the fourth grade, showed an average grade-equivalent for the several areas and subjects of approximately 4.1, with no grade-equivalent higher than 5.2.

3. Results from the *California Test of Mental Maturity* and the *Stanford Revision of the Binet-Simon Intelligence Test* provided IQ's of 96 and 91 respectively.

4. The pupil was 9 years 6 months of age at the time of transfer, was slightly small for his age, was shy, and preferred to work alone. He had considerable interest and ability in art.

5. Samples of his work seemed to bear out the belief that his achievement status was correctly represented as low fourth grade.

The mother, who accompanied the boy, was disturbed to know that the school was on an annual promotion basis and that there was no possibility of placing him in the first half of Grade 5. She insisted, however, that her son should be placed in Grade 5 rather than Grade 4.

Problem: Should the new pupil be placed in the fourth or the fifth grade?

Procedure: The school staff then took the following steps:

1. The four teachers, two each in the fourth and fifth grades, met with the principal and the elementary supervisor to study all of the available data. After considerable discussion, the group came to a decision that for the best interest of the pupil they should recommend his assignment to Miss Johnson's fourth-grade class.

2. The group then asked the mother to meet with them. The principal presented the recommendation to the mother, after reviewing all of the evidence and making rather extensive explanations of the factors involved.

3. The mother continued to insist that since her boy had been promoted to the fifth grade in what to her was an outstanding school, he should be placed in the fifth grade in the new school.

Some possible solutions: Among the possible solutions to the problem were these:

1. The pupil could be arbitrarily placed in the fourth grade.

2. The mother's wish could be followed and the pupil be placed in one of the two fifth-grade classes.

3. Placement could be on a trial basis in either the fourth or the fifth grade, with a final decision to be made two weeks later.

4. The mother could be asked to accept the responsibility for placement in the fifth grade.

Question: What would you have done?

The decision in a case such as this would necessarily be predicated on the school's basic policies for the placement of pupils. As pointed out early in this article, every school establishes somewhat different guidelines and different procedures for their implementation. But every school must develop some basic framework for decision making if it is to handle placement problems in such a way that each child is given maximum opportunity to realize his potential.

Using test results in pupil guidance

ROBERT F. DEHAAN

CHILDREN are considered to have social or emotional problems if their behavior interferes with their learning, with their relationships with others, or with their own personal growth and development.[1] According to figures released in New York State, approximately one out of every twelve children born into this world each year will be upset by problems of this kind to the point where they will have to be hospitalized in order to be helped.

It is not enough, however, to think of social and emotional problems only in the sense of mental illness. It is becoming increasingly evident that social and emotional stability are also important correlates of achievement in highly gifted persons. In order to translate high intelligence into achievement, a person must also have a solid emotional foundation.

Types of Maladjustment

There are numerous ways to classify social and emotional problems. In this article, we will look at 1) aggressive maladjustment, 2) withdrawn maladjustment, and 3) underachievement. These forms of maladjustment range from mild to very severe. Since the most adequate use of test results depends largely on understanding the kinds of children being tested, we will spell out each of these problems a little further.

Children who are overly aggressive are rather easy for the teacher to discover. In a sense, they might be called the "classic" problem children in the classroom. They tend to be sullen, rude, defiant in varying degrees. They are quarrelsome, they fight often, they are bullies and destructive. Other children regard them as pests. They disrupt the class, are difficult to manage, are likely to talk back to the teacher as they grow older. They may steal, lie, and hurt others. In short, they violate most of the religion-supported middle-class social ethics upon which the school is built.

Withdrawn children, on the other hand, are harder to discover. It seems as if they fit into the classroom so well. They don't cause trouble; they go out of their way to avoid it. They experience pain and discomfort when they are asked to answer a question or write on the chalkboard. Other children do not notice them. It is not that they are actively disliked; they are simply left out. They may daydream a good deal. They are easily upset, hurt, discouraged. In many respects, withdrawn children are on the opposite extreme from aggressive ones.

Underachievement has recently come into prominence in educational literature. It is usually associated with problems of bright children, but does not necessarily have to be. An underachiever is sometimes defined as a person whose ability places him in the upper one or two percent of his class but whose achievement is much lower, in the middle third or below for his age group. The definition, however, may be extended to include any child who shows a marked discrepancy between his intellectual and academic potential on the one hand and his achievement on the other.

Underachievers show many of the symptoms of the aggressive child. Like aggressive maladjustment, underachievement tends to be a boy's problem, although it is not exclusively so. Underachievers tend to come from homes that do not subscribe to the same values of hard work, achievement, and doing one's best that are emphasized in the schools. Rather, they value manliness, toughness, and "knowing the score." They have poor study habits. Their resistance to school takes

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1. Kough, Jack, and DeHaan, Robert F. *Identifying Children With Special Needs.* Chicago: Science Research Associates, 1955. 58 p.

the form of boredom, laziness, or overt rejection of school.

Underachievement is not limited to the intellectually gifted. Average and slow learners may also underachieve. Their problem generally takes the form of early dropping out of school, whereas gifted underachievers may finish high school and even start college. The potential drop-out is one or two years older than his classmates, has a poor attendance record, reads below his mental age, is ignored and disliked by other pupils, and does not enter into their activities.

Understanding Children as Individuals

The above categories overlap to some extent. Understanding what the children in the categories are like in a general way is the first step in the long process of helping such children. The above descriptions form a composite portrait. They do not fit any one child perfectly. The more difficult task still lies ahead, the task of understanding the children as *individuals*. The teacher needs to paint the individual portrait of the particular child with whom he is dealing. Tests can be of great help to him in this task.

A second difficult but indispensable step is that of going beneath the surface of the symptoms in order to trace through the maze of cause-and-effect relationships that have produced the symptoms. Two maladjusted children may look similar on the surface. The pattern of underlying emotions, experiences, and perceptions, however, is likely to be very dissimilar. The recommended treatment is also likely to be very different.

To illustrate: Two boys may show a comparable pattern of aggressive maladjustment. The problem of one may stem from overstimulation in the classroom. He may not be able to keep up with the pace set by the teacher and other children and may take out the resulting frustration in aggression. The second boy may suffer from understimulation. He may be frustrated by the slow pace and feel compelled to express his frustration in acts of aggression and rebellion.

Almost anything a child does or does not do can be used to identify problems that are bothering him. The vigor or the slouch with which he walks, the fire in his eye, the trembling of his voice, the cutting edge to his remarks give the teacher a good deal of information with which to assess his personal and social problems.

Children, however, learn to disguise their feelings and conceal their problems from themselves and others. Furthermore, the classroom and school becomes a rather standard environment for children after their first few days. That is, the classroom atmosphere does not change much after school gets underway. Children find their places in the group rather rapidly. They size up the teacher in less time than teachers realize and regulate their behavior accordingly. For these reasons, the teacher sees only a limited segment of the children's total repertoire of behavior. He sees their behavior in a specific environment. There may be much more the teacher would like to know but has difficulty discovering in the limited environment of the school.

Techniques for Identifying Problems

A number of instruments have been devised to assist educators identify and assess the problems of children. Let us look at some of them.

The first may be called standardized personality instruments. They are the paper-and-pencil, checklist variety. The child checks *Yes*, or *No*, or *I-don't-know* boxes in response to questions asked on the instrument. The items may be disguised somewhat so the "best" answer is not obvious, but most fifth- or sixth-graders can figure out which it is. These tests are probably most suitable about the fourth grade. Before that time, children cannot read them adequately.

These tests are of limited value. They are not generally keyed to bring out the information the teacher wants to know. They may give the teacher a starting point, however, in understanding and working with children who need help.

One example of a personality instrument is the *SRA Junior Inventory* for grades 4 to 8 which gives six scores: on health, getting along with other people, getting along at school, getting along with oneself, relationships at home, and things in general. There are many other personality tests on the market. Teachers and principals should consult the school psychologist who can help them decide on the feasibility of using a personality test in the classroom and what they can expect to gain from a given test.

Sociometric tests are useful devices for helping teachers ascertain the social structure of the classroom. It is not unusual for a teacher to discover that a pupil whom he considered to be well

liked is ignored or rejected by his classmates on the sociometric test. On the other hand, someone whom the teacher thought to be unpopular may be highly rated by the pupils.

One of the values of sociometric tests is the ease with which they can be constructed and administered. The teacher needs only to ask his pupils to write the names of their classmates who fit certain descriptions which he provides. He may ask them to name the children in the class who they think are leaders, or shy, or get angry easily, or who are their best friends. Sociograms can then be drawn from the data. For instance, the teacher can write all the names of the children on a sheet of paper and draw arrows from the name of one person to the name of another whom that individual chooses. Children who choose each other or who are ignored stand out graphically when this is done. A teacher can test the adequacy of his understanding of the group by trying to predict beforehand how each child will show up on such a sociometric test. Sociometric tests are well suited for discovering children who are aggressive or withdrawn.

Teachers can discover a good deal about children through the use of ordinary classroom assignments. Planned writing assignments are often revealing of the total emotional and social welfare of a child. Children can be asked, for example, to write an essay on topics such as their three wishes, what they want to be doing five years after high school, what was the most frightening thing that happened to them, what their parents do that makes them angry or happy.

Observations of teachers provide data for identifying children who have problems. Teachers need to systematize their observations and provide more varied opportunities for pupils to reveal a wider range of behavior than is usually permitted in the classroom. Systematic lists of characteristics are available which help teachers focus on significant variables in the behavior of children.[2] By also recording significant anecdotes, teachers can catch the essence of children's problems and build up a picture of a child over a period of time that may show long-range trends which do not appear in day-at-a-time observations.

Discussions of problems that are pertinent to children set the stage not only for children to relieve their inner tensions but also for them simply to show them. In such discussions, the range of permitted behavior is greatly expanded and children tend to show more clearly what is going on inside them than they ordinarily do. The alert teacher can utilize such behavior in his observations and anecdotes. There are bits of time in any school day in which the teacher can raise a question about what children think about various problems: how well they get along together on the playground; what fair play means; how to listen more carefully to each other.

To get at the basis of a child's personal and social problems, there is no substitute for looking into the home situation. Particularly important is the relationship each child has with the parent of the same sex. The relationship parents have to each other and the extent to which the child is used as a pawn in that relationship is worth discovering. The emotional climate of the home, the nature of the discipline, and the severity of punishment also affect the child's behavior in school. The teacher will be able to understand the needs of the child in school more clearly if he understands the aspirations the parents hold for the child and the degree to which the child shares their aspirations.

Even after trying his best, however, a teacher may still feel he cannot understand what makes Johnny tick, that the underlying sources of his problem have escaped him. A teacher might then wish to consult the principal and school psychologist or refer the child for clinical or psychiatric examination. Such an examination requires extensive preliminary contacts with parents and sometimes protracted correspondence with the clinical psychologist or psychiatrist.

If such diagnostic services are not available, teachers need to get along as best they can with the information they have obtained and the insights they can glean from it. The principal can help by arranging conferences of the people who can help the teacher with specific children. The school nurse, the public health nurse, a doctor, and the school psychologist can be asked to join the group. At this time, all the test information should be available for examination and every effort should be made to get at the underlying causes of the child's behavior.

Thus far, we have discussed rather easily identifiable problems of children. Let us turn our at-

2. *Ibid.*, p. 58-58.

tention now to some aspects of social and emotional problems that cannot be easily identified by use of the techniques we have discussed.

The Pupil's Self-Concept

Perhaps the most important aspect of personality that still remains inaccessible through the tests described above is the self-concept of the pupil. The self-concept is the picture the person holds of himself. It is his perception, understanding, and evaluation of himself. The self-concept is developed principally from the criticisms, judgments, and approbation that significant adults make of his behavior plus the evaluations he learns to make of himself. A person with a healthy self-concept adopts an essentially positive view of himself and his abilities, is capable of accepting himself and others, and tends to identify with other people.[3]

The importance of self-concept to behavior problems can hardly be overestimated. The child's behavior is largely dictated by what he perceives himself able to do and learn. If his self-concept is negative, he will tend to behave negatively; he will not attempt great things, he will try less hard and fail easily. If he is told often enough that he is a bad boy, he will incorporate this into his self-concept and soon conceive of himself in like terms. He may even do poorly on an IQ test because he may evaluate himself as stupid. A true assessment of his ability is very difficult when this happens. No matter how excellent a pupil's capabilities, the chances of his succeeding are very slim if they are not accompanied by a positive self-concept.

A teacher needs to be able to assess the self-concept of a student. With present instruments, he can do so only indirectly. For example, a student's self-concept can be inferred from stories that he writes about himself. It is desirable for teachers to have more direct access to the self-concept of a student in order to help him more adequately. New advances are being made in research in this area and teachers may someday have the necessary instruments to make the direct assessment of self-concept possible.

Other important questions about a pupil cannot be answered with a single instrument but require a combination of instruments. Underachievement, for instance, can be assessed by two instruments—an aptitude test (assuming it is a true measure of aptitude) and grade point average. A measure of social forcefulness can be obtained by the discrepancy between the aptitude test scores of a pupil and the *rating* of his aptitude by his classmates on a sociometric test. Some children have more ability than their classmates give them credit for, and others have less.

Both Objective and Subjective View Needed

How can these instruments help the teacher alleviate the pupil's problems so he can attain a more adequate and productive life? It should be accepted from the outset that the teacher needs to be able to take both the *objective* and the *subjective* view of his pupils. The former is easier. Using the data from measuring instruments, the teacher should be able to describe with a good deal of objective sophistication the strengths and weaknesses of each pupil. By sophistication is meant the dispassionate, sympathetic view of the underlying causes of Johnny's aggressive misbehavior, withdrawn inaction, or bored underachievement. The teacher goes beyond the pat, oversimplified, cliché-ladened explanations of the child's problems. For example, if a pupil is failing academically, he does not pass it off as laziness and let it go at that. Rather, using all the test information available, he tries to ferret out the psychological significance of failure and laziness in the total social and emotional economy of the child.

Besides taking an objective viewpoint of the child, the teacher also needs to enter into the child's own world and view the world through his eyes. He needs to perceive his home life as he sees it; he needs to understand that the resentments he feels are valid and real to him; he needs to be able to see and evaluate the person as he does himself. In short, he needs to know his self-concept. If he does not, he may never get through to him.

Obtaining an objective picture of the child, the way a camera does, is important. Tests can help provide such a picture. Going beyond the objective picture is even more important. Seeing his internal world as the child might paint it is the essence of helping the child. Instruments can show the teacher where to start looking.

3. Combs, Arthur W. "Personality Theory and Its Implications for Curriculum Development." *Learning More About Learning*. Washington: Association for Supervision and Curriculum Development, NEA, 1959. p. 15-20.

DIAGNOSING sources of learning difficulties

JAMES D. RATHS
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IT is the contention of Lawrence Kubie of the Yale School of Medicine that children learn effortlessly, naturally, and quickly if *they are undisturbed by other influences.*[1] At the same time, there is evidence available that learning in the elementary school is not the swift, spontaneous process that Dr. Kubie suggests it should be. Teachers have become very aware of the great variations in learning that are present in their classrooms among children with approximately similar abilities. With the advent of scientifically constructed achievement tests, they have found it a relatively easy task to identify areas in which students show evidence of poor achievement. However, beyond that level, teachers and principals find it difficult to locate specific learning difficulties and very difficult to identify sources or causes of learning difficulties.

The distinction between these three levels of perception should be noted. The first level represents the general performance of a child. Level two isolates a specific learning difficulty when possible; and the third level focuses upon the sources of learning difficulties. It is one thing to say that a student cannot spell as well as grade level norms indicate he should or that certain types of spelling errors persist; it is clearly another to discover reasons for his poor achievement in spelling.

This discussion is aimed at the third level—sources of learning difficulties. General achievement can be noted from available tests and specific difficulties can be identified through the diagnostic qualities of the test. The essential level which remains to complete the picture is the source of learning difficulties. This problem may be phrased: How can teachers and principals use tests and other measurement techniques to identify the sources of learning difficulties?

Use of Problem-Solving Techniques

The identification of sources of learning difficulties can best be accomplished by making use of a problem-solving procedure. In short, such a procedure involves 1) an awareness of a problem; 2) a formulation of hypotheses; 3) the collection of data; and 4) the drawing of inferences. Although the steps are probably never as clear cut and systematic as they will appear here, they can be profitably discussed as if they were separate and sequential.

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1. Kubie, Lawrence S. "Are We Educating for Maturity?" *National Education Association Journal* 48:58-63; January 1959.

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Awareness

An awareness of a learning difficulty is the first step in the problem-solving process. In general, teachers become sensitive to learning difficulties through an examination of students' performances on various intellectual tasks—standardized achievement tests, teacher-made tests, homework, and workbook assignments. If a student's performance on these tasks 1) fails to meet absolute standards set by the teacher, the school, or society, 2) fails to measure up to the norms of his peer group, or 3) fails to be at a level commensurate with his capacity, the student is said to have "learning difficulties."

Formulation of Hypotheses

Once teachers are sensitized to learning difficulties, they are ready to formulate hypotheses that will serve to solve the problem. It is absolutely necessary to identify the source of the difficulty in order to arrive at long-range solutions. Sometimes, teachers are fooled by the success of a trial and error technique in this respect and neglect to go beyond the symptoms to the sources. A teacher, for example, may embark on a special program of drill work for a child which seems successful. An examination of his procedure may show that the amount of attention he has given the child has doubled in the process. The fact that the child is now having frequent conferences with the teacher could be vastly more important than the remedial work going on in the conferences. In this instance, the teacher seemed to stumble inadvertently into a "solution." The teacher's efforts, however, would have been more effective and efficient if he had proceeded directly to an examination of the sources of the student's learning difficulties rather than focusing on the symptoms of poor performance.

There are five essentially separate but highly related sources of learning difficulties from which teachers can draw hypotheses for testing. Each of these sources is described briefly below.

Psycho-social sources: Psycho-social sources of learning difficulties are generally rooted in emotional needs. A student may feel a need for achievement or recognition, a need for acceptance and belonging, or a need to be free of feelings of fear and guilt. Many times, unmet needs are on a preconscious level and cannot be verbalized by a student, although they are often manifested in symptomatic behavior patterns such as aggression, withdrawal, submission, or psychosomatic illnesses. Energies channeled into aggressive acts are energies diverted from learning tasks. Extremely withdrawn children tend to become nonparticipants in learning activities with obvious deleterious consequences to their achievement rates. Rather than focusing their attention on the symptoms, teachers and principals must work to identify the needs of children and to meet those needs.

Intellectual sources: Learning can also be blocked because of deficiencies in intellectual ability. Some tasks may be too difficult or too complex for a child to master, simply because of his low mental ability. There is also some evidence to suggest that very intelligent, gifted youngsters have difficulty mastering assignments that seem obvious and mundane to them. On the whole, teachers seem to be more aware of this source of learning difficulty than any other. In fact, in some schools it is overstressed. There is evidence to show that students' performances on IQ tests are not necessarily constant and that radical changes are possible when accompanied by concomitant changes in environment and emotional climate.

Cultural sources: Cultural influences seem to play a significant role in determing children's interests and attitudes towards schools, teachers, and learning. Class work motivated simply by the axiomatic "learning is good—everyone should want to learn" does not seem to interest some students. Students who do not accept the reward and punishment scheme of the school may simply withdraw from it, if not physically via a drop-out method, then mentally into a world of fantasy and daydreams; or they may rebel against it. Also, feelings of guilt and mortification, stemming from a confrontation with middle-class morality, can cause difficulty in learning tasks.

Growth sources: Most of us are familiar with the idea that the development of the child should be noted in our search for appropriate curriculum experiences. It is also highly relevant to our search for learning difficulties. How often have we heard of the phenomena of the "late bloomer"?

Late blooming, developmental patterns, spurts in various areas of growth, or the general impact of physiological growth may be highly relevant as a source of learning difficulties. The child, for

example, whose energy is channeled into physical growth may not be able to spare enough energy for curriculum tasks. Also, some evidence exists that learning difficulties may be related to body dominance patterns, body configurations, chemicals active during neural synaptic transmissions, lack of sensory stimulation, and sex differences in oxygen consumption.[2]

Curricular sources: Sources of learning difficulties may arise from the nature of the curriculum experiences children have. For our purposes, the curriculum is viewed as the kinds and patterns of experiences in learning tasks.

Some sources of learning difficulties arising from the curriculum are problems of clarifying objectives, selecting and organizing learning experiences, and evaluating outcomes. At any point in the past experiences of a child or a group of children, faulty or unintelligent curriculum decisions and operations may have taken place. For example, uncertainty about objectives may result in the selection of activities that have only a hazy relationship to clear purposes for either teacher or pupils; or the selection and organization of learning experiences, both vertical and horizontal (scope and sequence) and in terms of centers of organization (topics, units, lessons), may have no clearly planned pattern. Evaluation may pose another source of difficulty. Failure to evaluate carefully both processes and products leads to the assumption that the presentation of material or activities is synonomous with the learned outcomes.

The failure to plan or to execute plans carefully and systematically may lead to such problems as repetition, gaps of no learning, busywork, and poor pacing, resulting in learning difficulties.

Collection of Evidence

Once teachers have selected a tentative hypothesis from one of these five areas or from some other area, they must collect evidence and make inferences concerning their validity.

It would be impossible to list here tests appropriate for the gathering of evidence in each of the five areas listed above. Besides the limitations of space, we are confronted with the fact that the selection of tests is a very sensitive procedure demanding utmost care and thought. Differences in purposes, populations, and staff are but a few of the factors that teachers and principals must take into consideration when selecting tests.

Principals and teachers may locate appropriate tests through publishing house catalogs, through Buros' *Mental Measurements Yearbook*, or through current literature in professional journals.

It goes without saying that an examination of test manuals or publishing house catalogs cannot provide sufficient evidence to warrant the adoption of a specific test. Without attributing dishonest motives to testing companies, it would seem natural that publishers lose some objectivity when they set out to describe their own tests.

To find out more information about tests that may be used, Buros' *Mental Measurements Yearbook* is an excellent source.[3] This yearbook indexes under author, title, and type of test most of the available measuring instruments. More importantly, it also publishes reviews of the tests by experts in the testing field. These reviewers are quick to point out the strengths and weaknesses of the tests under consideration.

Thirdly, teachers and principals may find new measurement instruments—both standardized and the teacher-made variety—discussed in some detail in current professional literature. Certainly, this source of discovering newer measuring instruments should not be overlooked.

Even if tests meet strict statistical requirements, they are only valuable when used as sources of evidence for ascertaining the sources of learning difficulties. Tests used to label children as "dull-normals" or "underachievers" and so forth tend to become ends in themselves. It is important to stress that the use of tests only makes sense in the context of a problem-solving situation and only when the tests are conceived of as tools for gathering evidence to be used to test hypotheses.

Drawing Inferences

Inferences drawn from test results are closely related to the hypothesis and the choice of the

2. Waetgen, Walter B. "Developmental Knowledge and Needed Curriculum Research." *Research Frontiers in the Study of Children's Learning.* (Edited by James B. Macdonald.) Milwaukee: School of Education, University of Wisconsin, 1961.

3. Buros, O.K., editor *Fifth Mental Measurements Yearbook*. Highland Park, N.J.: The Gryphon Press, 1959. 1312 p.

measuring instrument. Tests are administered with the expectation that high or low scores in certain areas either support or refute the hypothesis. For example, a teacher may feel that a student's learning difficulty lies in his not being accepted by his peers. To test this idea, the teacher may administer a sociogram. If the test shows that the student is rejected by the group, the hypothesis is supported. On the other hand, if the test demonstrates that the student is fairly well accepted by the group, the hypothesis is rebutted.

It is essential that the problem-solving process be imbued with the spirit of "doubt." Inferences should not be made from any one or two tests and teachers should always be ready to back away from tentative conclusions as new evidence is discovered. This does not mean that tentative inferences should not be acted upon. On the contrary, only as conclusions form the basis for new hypotheses to test and retest can their value be ultimately assessed.

Hypothetical Case Studies

The following hypothetical case studies are offered as a summary. The two studies reflect different problems, but it is hoped that the following major points are illustrated within each.

- Performance data are symptomatic of learning difficulties, rather than representative.
- Finding ways of overcoming learning difficulites involves looking at the sources of learning difficulties with a problem-solving approach.
- There are many sources of learning difficulties, and a variety of measures are necessary.
- Tests are ways of providing evidence in the problem-solving process; they are not ends in themselves.

Case I

Bill came to our school from the deep South. His father took a job on the assembly line at the automobile plant. Miss Schultz, Bill's teacher, noted that he seemed perplexed and bewildered by the fourth-grade arithmetic work. Her teacher-made diagnostic test revealed Bill's inability to answer many of the questions correctly. At first, Miss Schultz assumed that the answer lay in Bill's low mental ability. The Lorge-Thorndike Test[4] that all the children took during the first week of school indicated that Bill's IQ score was 88.

In a sense, Miss Schultz lowered her expectations for Bill until she began to notice his high-powered achievement in other areas, which belied a low intelligence. She consulted with the school psychologist and he administered a Stanford-Binet.[5] Bill's score was 103. With this information, Miss Schultz took another look at Bill's arithmetic performance.

Miss Schultz proceeded to hold a conference with Bill and asked him to think out loud about some arithmetic problems. It soon became apparent to her that Bill did not understand the concepts of base and place and had only a minimal recall of basic subtraction and addition facts. Why?

Bill's cumulative folder contained report cards from his previous school. He had C's in arithmetic. No other data about past years were present.

Was Bill emotionally upset or maladjusted? Miss Schultz administered the Ohio Social Acceptance Scale[6] to check on his relationships with the group.

The sociometric appraisal showed that Bill was not rejected by the group and, in fact, that Bill had quite a few close friends of both sexes. Further, he showed no signs of aggression, submission, or psychosomatic illness which are symptomatic of emotional needs.

Did Bill and his family prize education? A conference with his parents and informal chats with Bill convinced Miss Schultz that both parents wanted Bill to do well. Bill's parents had tried often that fall to help Bill at home as best they could. Also, there were books in the home and Bill's father studied evenings by a correspondence course.

Could Bill's developmental energies be channeled elsewhere? Perhaps, but again Miss Schultz felt from her height-weight chart and Bill's basic energy output that this was not likely.

Miss Schultz's basic hunch became simply that Bill had not had the appropriate curriculum experiences. Since she had no further evidence

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4. *The Lorge-Thorndike Intelligence Tests.* Boston: Houghton-Miffin Company, 1957.

5. *Revised Standford-Binet Scale.* Boston: Houghton-Mifflin Company, 1937.

6. *The Ohio Social Acceptance Scale.* Columbus: Ohio Scholarship Test & Division of Elementary Supervisor, Ohio State University.

available in terms of records from previous teachers, she decided to test this hunch directly. Her plan involved special concrete manipulative experiences for developing an understanding of base and place, and drill sessions on basic facts as understanding grew. She was confident that if Bill received these experiences, in time his learning difficulty would be overcome.

Case II

John, a sixth grader in our school, was considered by his teachers to be an underachiever. Although he performed at grade level on the achievement battery given in the fall, his IQ scores over the years fell in the neighborhood of 150. Mr. Morton, his teacher, assumed that John was having some learning difficulties. John had been in our school since first grade and his cumulative record reflected many identical comments by his five previous teachers: "John is doing all right but he could do a lot better." Mr. Morton accepted it as his task to find the causes of John's learning difficulties. Further study of John's folder indicated to him that John's achievement growth had been relatively constant and even through the first five grades. This evidence seemed to cast doubt on a curricular source of learning difficulty, a hunch that was further substantiated by conferences with John's previous teachers. There didn't seem to be any gaps in John's curriculum experiences.

Mr. and Mrs. D., John's parents, were both college graduates. Mr. D. held an excellent position in a department of a local manufacturing firm. Both of the parents seemed to support the school and its goals. Mr. Morton decided on the basis of this evidence to dismiss cultural factors as a source of John's difficulty. During a parent-teacher interview scheduled early in the school year, Mr. Morton became aware of the tremendous concern the D.'s had for their son's progress. Several times, Mr. D. suggested that his son was "letting him down" and that both he and his wife were perplexed by John's mediocre performance. "We have to correct his grammar almost every night at the dinner table and his spelling is atrocious—it's a disgrace," Mr. D. remarked. Mrs. D. told Mr. Morton of the study desk they had provided for John with an encyclopedia and dictionaries. "But he doesn't seem to appreciate what we have done for him," she concluded.

Mr. Morton came away from this interview with the idea that John was experiencing some unmet needs. This hypothesis was supported by his observations in school. John tended to eat a great deal in the school cafeteria. He often wanted second and third helpings and he spent a lot of his money on candy and chewing gum. Mr. Morton went back to look at John's cumulative file again and examined his Wetzel Grid.[7] While he was overweight for his size, John's growth curve seemed to be in a channel that was appropriate for his stage of development.

Mr. Morton decided to gather more information about John's developmental pattern of growth and also explore the area of unmet needs. He administered to John the Van Pit Test-Needs.[8] His test score indicated that John was suffering from a "need to be relatively free from feelings of guilt." This evidence seemed to fit with the other data. Mr. Morton saw as a possibility that John's feelings of guilt made it difficult for him to extend himself in the learning area. Any explorations or creative efforts on John's part that led to failure or teacher dissatisfaction would result in serious consequences at home—at least in John's eyes. Mr. Morton hypothesized that if he were able to meet his need to be relatively free from feelings of guilt, John would more nearly be able to work at a level commensurate with his capacity. If this were to be accomplished, Mr. Morton decided, it would probably also be necessary to arrange conferences with John's parents in an effort to alleviate some of the home-created sources of John's guilt feelings.

The problem-solving approach that has been discussed in this article and illustrated in the two case studies is an effective technique for identifying the sources of learning difficulties. It must be permeated by a spirit of doubt and questioning, by a refusal to settle upon an "answer" without a careful analysis of the evidence. When used in this framework, as methods for obtaining evidence and not as ends in themselves, tests and other measurement techniques can be helpful tools in freeing children to learn.

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7. Wetzel, N. C. "Physical Fitness in Terms of Physique Development and Basal Metabolism." *Journal of American Medical Association*, 1941. p. 1187-1195.

8. *Van Pit Test-Needs*. Bronxville, New York: Modern Education Service, 1952.

Parents and Tests

ROLAND M. GLENN

A CAREFUL analysis and use of information that has been collected through the administration of academic, intelligence, sociometric, and psychological tests can help the individual child become a freer agent and a more productive student. This outcome depends upon what happens in the school and home life of the child after tests are administered and interpreted. The involvement of parents in this process should not be underestimated by school people.

In general, parents do not understand all of the sophistications of modern testing programs. They do, however, realize that the teachers in our schools now have available to them data concerning many different aspects of their child's behavior in school. Parents realize that teachers and administrators consult test records and specialists. They have heard about child guidance conferences where the grade level achievement in reading is discussed, where the estimate of the child's intellectual capacity is noted, and where the quality of the relationship between the youpster and his peers, his siblings, and his teachers and parents is reviewed. Parents are curious about these procedures and vitally interested in hearing about any information that might concern their child.

Education should be a cooperative enterprise between the home and the school on behalf of children. Among other things, this cooperation should include evaluation and reaction to test data. In most cases, parents ought to be well informed about the intellectual, social, and psychological behavior of their child in school. This should often include an explanation to parents of the types of tests being used and an interpretation of the individual child's test performance.

A large percentage of parents have the capacity to evaluate the test performance of their children and become more effective in cooperating with the school as a result. But some parents may become anxious about their child as they are helped to understand the observation that the school has made. This has long been advanced as one of the reasons for not going into detail with parents regarding test results. An assumption that parents will be frightened into a state of ineffectiveness when confronted with the realities of their child's development in school is a fallacy. A well-informed, concerned parent can be of much more use to a child and to his school than an anxious parent whose anxiety grows from suspicion based upon lack of knowledge. The teacher, the specialist, the administrator, and the parent, if they are to be really effective, will have to learn how to work with each other directly and honestly and not always with a view to keeping each other happy. In other words, if testing programs are to have any value to the child, the data collected must be used rather then filed, discussed with parents and children rather than relegated to a sterile cumulative record card, and made a basis for changed behavior.

Diagnosis of a child's functioning in a test situation is a most important goal in reviewing test data with parents and children. If a child is doing poorly in arithmetic testing, he and his parents should be informed. If the difficulty is centralized in concepts of dividing or measurement, something can be done about the problem other than to worry about a weak performance in mathematics in general. In almost every type of test used in schools today, this opportunity to diagnose performance in one area or another is open to the teacher.

A child's scores on academic tests are important indicators of his school progress and parents ought to be kept well informed about this area of their child's work. The school person who has established the most effective communication with the home should present and interpret these scores, using the method of communication which

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has proven to be most successful in terms of the relationship between this specific home and the school. The method of communication may vary from time to time and involve different individuals. Sometimes, it will take the form of a conference between the teacher and the parents. At other times, it may involve specialists and administrators. Children themselves have profitably participated in conferences of this type with their teachers.

Charts have been used by some teachers to illustrate the areas covered by a particular test and the child's performance in each area. A visual presentation may make it easier for some parents and some children to comprehend the school's diagnosis of a child's test results. However, in general, these materials are not as satisfactory to parents as a simple, verbal statement of how the child performed in a particular situation. Avoid the use of gimmicks! They may work for a while, but more often than not, they lead to trouble and misinterpretation by parents of the school's sincere efforts to be of help.

The thesis of direct and honest communication does not remove from the school the responsibility of making judgments about the wisdom of communicating test information to parents. Neither does it eliminate the need for appropriate discussion of tests as a public relations instrument in interpreting a major aspect of the school program.

Some schools have found it valuable to plan parent meetings to explain the content, values, and limitations of the testing program. This procedure can give parents a broad understanding of measurement techniques which will help them to interpret better their own child's performance. Meetings of this kind can also be used to give parents an appreciation of the accomplishments of the total school population and an awareness of some of the weak points in achievement that can be corrected only through the expenditure of additional resources and greater home-school cooperation.

An effort of this type, geared to helping parents support the school program, is most important. It is not, however, as important as helping parents to understand the measurement program in relation to their own children. And we should always exercise caution if we compare local test scores with national norms. The use of test information by a school system for the purpose of building its reputation or image among parents, or for the sake of achieving a professional standing in relation to other school systems, is phony. This technique is easily detected and is worthless in helping children or in gaining the sincere and lasting help of their parents.

The school should also exercise caution in holding confidential certain types of information obtained from psychological tests. Many parents have come to appreciate the value of these measurements. However, the only person who is qualified to draw generalizations from the raw test information is the trained specialist who administered the test. Teachers and parents should be provided with the information they need to be more effective in helping the child develop. Neither group needs nor should have every item of raw information known about the child. On the other hand, it is hard to justify psychological services in a school, including testing, if parents and teachers are not invited to share the information. The psychological specialists in our schools need to realize the potential positive contributions of parents and learn how to communicate their findings about children in a simple, direct, and sympathetic manner. There have been too many cases where lack of direct involvement of the parents in the initial decision to consider psychological examination has resulted in a release of misplaced hostility by parents on the school personnel. There is no absolute recipe for making decisions about how far to go in interpreting psychological test information to parents. One has to make judgments from case to case.

One thing seems quite certain. Parents are ready to cooperate when they believe that they are dealing with a school person who respects them and values their ideas and help. They resent individuals who operate in an aloof, pseudo-professional, secretive manner.

Most parents are aware that the school administers tests, and most parents attempt to help their children succeed in school. If parents are operating from ignorance about the way their child is performing, both the child and the school will suffer. It has been said that children are known best by their parents. Perhaps we school people should make better use of this knowledge and take parents into our confidence. We may experience a few difficult moments from time to time, but they are well worth it if children benefit from the effort.

WHAT TESTS WON'T DO

F. N. HAMBLIN
R. A. MILLIKEN

THE axe is a marvelously useful tool. Lumbermen in the Canadian woods use it to cut and trim massive trees for lumber and pulp, while Annamese along the South China Sea use it to sharpen the poles that hold their fish nets in place. Eskimos at Frobisher Bay sometimes use it to clean freshly caught seals, while frustrated scoutmasters in Yellowstone Park have doubtlessly seized it feverishly to thump tent pegs into the ground as an approaching thunderstorm threatened to soak their high-spirited charges.

An axe, in short, is a tool of great and most diversified utility. Yet, by itself, the axe possesses no value. Its usefulness depends entirely upon the imagination, the knowledge, the skill, and the experience of the person using it. Even the moral values of the individual wielding the instrument might be pertinent, were we to consider such an atypical case as that of Lizzie Borden.

By analogy, these same generalized conclusions may be applied with considerable validity to that somewhat more sophisticated tool, the test. The test, like the axe, has been in use for some thousands of years. Historically, one of the earliest uses that comes to mind was in ancient Egypt in connection with the hiring of tax collectors and civil administrators. But it is really only during the last 30 years or so, that the test as a major tool in the instructor's kit has been subject to the massive experimental or scientific investigations which have lifted it to its present lofty eminence.

The test, however, is but one of many tools to be used in assessing mental, spiritual, emotional, aesthetic, and other kinds of learning or development. And as with the axe, the effectiveness of the test is conditioned almost entirely by the imagination, knowledge, skill, and experience (qualities which may perhaps be lumped together in the term "judgment") of the person using it. Too frequently, egregious deficiencies in these qualities can cause the test to be sadly mal-administered, ab-used, and mis-interpreted, producing—often rightfully—severe critcism.

This concluding article on the subject of testing is intentionally rambling, cursive, and nonscientific. It contains no footnotes, tables, or correlations. It considers in no well-defined order a number of matters deemed germane to the subject and, like all human efforts, illustrates some truths and displays some errors, exhibits some knowledge and reveals much ignorance.

Tests and Their Problems

Perhaps the most commonly conceived definition of the test would run something to the effect that it "is an examination made for the purpose of proving or disproving some matter in doubt." Normally, for our purposes, the matter in doubt is the quantity or nature of alleged learning that may or may not have taken place in the case of some particular student or students within some particular limits of place, time, and circumstance. The test, then, is a tool of evaluation and diagnosis, a means of measuring the effectiveness of the curriculum and the degree and kind of learning that result.

Tests, however, are not mystically infallible devices of evaluation. A formidable set of problems

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confronts anyone who attempts to use them to measure the outcomes of instruction. There are all of the problems inherent in tests themselves, the multiple complexities of tests in relation to the scope and emphasis of the curriculum, and, finally, the host of problems concerned with individuals and their possible relationship to the testing instrument.

Tests and the Test

The difficulties inhering in tests as tests—in terms of validity, reliability, objectivity, and assorted other polysyllabic terms—have been so thoroughly considered in other articles in this series that further analysis of the subject would seem redundant. The fact that such problems exist is well illustrated by the results of a two-year study conducted recently by the Research Division of the Educational Testing Service. The study endeavored to define experimentally the diverse criteria used by qualified readers in evaluating compositions written by college freshmen. Fifty-three highly able judges were asked to evaluate independently, on a scale of one to nine, 300 freshman essays. Over a third of the essays received all nine possible grades, while well over another third received eight of the nine possible grades. No essay received fewer than five different grades from the 53 readers!

Although the ETS study was concerned with a highly subjective type of evaluation, it does, perhaps, illustrate that the validity, reliability, and objectivity of an evaluative instrument are not so much internal as external, not so much a matter of the instrument itself as the way in which it is used.

Tests and the Curriculum

When tests are used to evaluate the effectiveness of the curriculum, one is employing what is of necessity a very narrow instrument to cover a very broad area. Tests that measure the total range of learnings, and put them in their proper perspective, simply do not exist. In order to serve as objective measures, tests can incorporate items on only those aspects of the curriculum that are definitive. The range of learnings outside these "facts" is nearly always neglected. As of the present, for example, tests have been devised to assess only a very few of the 50 or so dimensions of the mind that have been discovered. Even when an attempt is made to include in the evaluation program such desirable learning outcomes as reasoning, judgments, and attitudes, they almost by definition are considered in isolation from a definitive curriculum content, which alone can give real meaning and value to the desired goals.

Test results are nearly always expressed in terms of groups, while educational objectives are nearly always stated in terms of individuals. At once, then, there is the almost impossible task of trying to separate and sort out the individual learnings from the group learnings. Suppose, for example, that a sixth-grade student possesses all of the personal attributes of individuals who normally achieve well. If he does or does not measure up to the norm for his grade, or if he falls far below or far above the norm, what implications can be drawn about the effectiveness of the curriculum? Obviously, the list could be long. But it remains the responsibility of some kind of evaluation other than testing to determine—or to guess—the precise implications.

A further consideration involves the peculiar nature of the local curriculum. Curriculum construction is properly the function of individual educational enterprises. Presumably, a reading guide for a particular school system reflects the goals of the community's professional staff and laymen. However, the tests that are used to evaluate the reading program are usually constructed by professional test-makers who attempt to measure only the most commonly accepted goals of reading instruction. If one really subscribes to the principle of *local* curricular *needs*, he can hardly accept an evaluative instrument that is *national* and *content* centered!

Another problem arises in relation to the weighting of test items and scoring procedures. Certainly, many tests attempt to measure too much in too little time. As a result, they can include only a limited number of items. In order to derive a total test score, then, each of these items or sections of items is normally assigned a weight. But is this weighting consistent with the weighting of the local curriculum?

Let us assume that a general achievement test is administered in a school that for some reason or other devotes a major share of its instructional time to spelling. In terms of the amount of energy and time devoted to this subject (which presumably reflects a need), is the spelling section of the test given proper weight?

The limited number of test items presents a further difficulty. Test items reflect a total instructional area, while instruction reflects the accumulation of all the bits which together form the whole. A child who may or may not perform well on an achievement test may or may not be able to cope with the bits of information that are needed to construct the whole.

Let us suppose that a particular test item presents a quotation from a literary passage and asks the student to identify the total work. Let us further assume that for some unknown reason the student is familiar with the passage and can identify it, but hasn't the vaguest notion about what it means or its significance to the total work. Does his correct response on the test item mean that the curriculum is effective?

A final point should be noted about tests and curriculum construction. Normally, curriculum construction refers to the development of a set of learnings deemed desirable for a given group of learners. If a test reveals that the pupils have not achieved the prescribed outcomes, is this shortfall caused by faulty teaching, or by faulty learning? Or is it the result of a series of external factors? Or is it caused by a combination of many factors, both internal and external?

If one is to measure the effectiveness of the curriculum by the use of tests, he must judiciously consider all factors, internal and external—including the teacher.

Tests and the Individual

The individual is the vehicle through which the test assumes importance. It is through the individual that the test takes on meaning and that the interpretation of the results may bring about change. And yet, in all too many instances, tests are not designed for individuality. The difficulties of test construction are such that it is virtually impossible to develop tests which can be employed only for a specific individual. The factors of time and cost make it mandatory that tests be developed which can be administered to groups.

In order to make test results more meaningful, "normal" scores have been developed. Such scores make it possible to weigh one group against another. Most often, these are random groups and are comparable only in terms of the total range of individuals of which the normal group is comprised. Thus, it is difficult to weigh a specific individual in terms of another specific individual or group of similar individuals, except within the confines of extremely narrow criteria. It is, of course, possible to consider a fourth-grade student in terms of other fourth-grade students in a given test area, though it is not possible to compare the students in terms of their individual learning traits. Such factors as socio-economic level and, by indirection in terms of cultural implications, race and national origin are known to affect learning. Yet they are with only the greatest difficulty identifiable. Moreover, we have but to consider the absence of information relating to even more important factors such as health, interest, motivation, and so forth, and it becomes increasingly clear that many kinds of tests do not have their greatest value in terms of what they reveal about the individual student.

Another difficulty encountered in relating the individual to tests concerns the diagnosis of specific accomplishments or failures. Because of their sampling technique, most tests indicate only the general area of failure or accomplishment. An arithmetic achievement test may reveal that a student displays a lack of ability in multiplication. What it may not reveal, however, is the specific malfunction. Is this malfunction caused by an absence of specific factual information? Or is it due to a lack of understanding of the process? This limited example serves the purpose of illuminating the obvious fact that, at best, test results are likely to reveal only partially the specific relationships which must exist between an individual and meaningful evaluation.

Test norms do not account for more than a very few of the factors—internal and external—which influence the individual's performance of the task set forth in the test. Yet these factors must be identified and weighed in interpreting the results if the test is to have substantial meaning for the individual. The student with a reading problem will often experience failure in any test which requires him to read, even though he may have a good (and unrevealed) command of the factual information or mental process which the test was presumably designed to expose.

Perhaps the most important factor in the testing experience concerns its effect upon the individual. Because of the factual nature of many test items, it is always possible that students, teachers, and parents may place undue emphasis

upon the mastery of factual material, causing students to become primarily concerned with that which is easily measured, rather than with that which is more profitably learned. The dangers of this possibility being present are never remote, since the desire to achieve is very strong among intelligent humans.

Limitations of Human Knowledge

Before proceeding further with this task of hopelessly large proportion—trying to sketch briefly what tests won't (and will) do—it may be useful to observe that, from a practical point of view, the primary purpose of this article can only be to encourage further reflection by the reader. It cannot attempt to settle or define any issues, for in the social sciences, at least, there are only techniques, tentative hypotheses, and provisional "facts"—and no immutable, irrevocable, final explanations, conclusions, or solutions. The robes of deliberate modesty and of constant humility can be the only appropriate vestments for the inquiring mind.

Since only .35 percent of human history has elapsed since the development of the first alphabet and only 200 human generations have passed since the beginnings of recorded history in Egypt, it seems unlikely that we should today presume to be, historically, at the point of discovering any panacea for human difficulties in economics or in medicine, in education or in "testing." Even taking into account the vast additions to knowledge which have taken place in the course of this present century, it still seems entirely safe to say that the aggregate sum of what man does *not* know about both himself and his environment exceeds in size by some thousands of magnitudes the sum total of that which he does know. With respect to this subject of man's knowledge, a few years ago R. J. Forbes, in his history of engineering entitled *Man the Maker,* had occasion to conclude that "we have picked up but a few pebbles from the shores of the vast ocean which remains to be explored."

Perhaps because we as a nation have (consciously or not) recognized this truth, we have subscribed to the historically unique theory that any person, regardless of his background, should have an opportunity to develop his talents, to seek self-fulfillment, for the good both of himself and of society.

Nature of the Educative Process

When any individual arrives at the conclusion of his formal study, he is arriving only at the end of his individual cultural adolescence, that is, the point at which he can and should strike out on his own on the lifetime task (and joy) of self-education—the only really effective kind of instruction. By implication, then, the only real or ultimate criterion for the presence or absence of learning in any individual concerns the amount of change in his behavior which may be reflected (far outside the immediate testing situation) in the succeeding days and years of his life. For the primary purpose of education—and, by implication, of testing, which is a small part of the educational process—is not so immediately concerned with one's relationship to others as it is with the degree to which one does or does not succeed in achieving up to the level of one's own potentialities, whatsoever these may be.

The American child of school age will normally spend between 1,200 and 1,400 hours each year under the jurisdiction of the school which he may happen to attend. By combining their best judgments, parents, schoolboard members, and educators must endeavor to assess for their own schools the relative values of each of the normal subject areas and kinds of activities to which any given child in any given grade will normally be exposed. And they must indicate in broad terms the amount of emphasis and time which should be spent on each. Within each of these broad areas and activities, it presumably should be the function of teachers and supervisors to determine how much time should be spent on teaching, testing, guidance, remedial work, and other appropriate activities concerned with the learning process. They must do this, of course, realizing that no child can be properly regarded as entirely "normal," and that individual allowances within these general allocations should be made for each child in accordance with his individual needs.

It is interesting to speculate that, ideally, fine teaching might render all of the other activities irrelevant and unnecessary. For, in balance, there is no substitute for competent judgment on the part of all parties involved in the learning process. It is this judgment, and not a plethora of tools, which determines the degree to which the educative process releases the individual to realize his potentialities.

What Tests Won't Do

These, in summary, are some of the limitations of tests, limitations which establish the framework for their appropriate and effective use.

Operational Limitations

- Tests will not tell what our educational objectives are or what they should be—or what relative amounts of class time should, under any given circumstances, be devoted to the pursuit of any of these specific objectives.
- Tests will not even begin to measure the effectiveness of the instructional program in any given school unless the tests employ the basic guides used by the school's curriculum planners.
- Tests cannot measure the amount or kinds of learnings achieved in a specific subject-matter area except insofar as the content of the test reflects learnings in proper proportions and the test is properly scored. Was, for example, the appropriate amount of the appropriate desired learning appropriately sought with appropriate items? (Too much might have been attempted, for example, or individual differences in reading ability may have exerted a disproportionate influence upon the distribution of scores).
- Test results reveal little about the countless irrelevant and often unknown factors which may have intruded on the relationship between the pupil and the test. In extreme cases, trying to tell how much an individual may have learned on the basis of a specific test result may be strongly analogous to picking up a ruler to find out what time of day it is. Poor test results may indicate poor instruction by the teacher, poor digestion in the student on the morning the test was given, or any number of countless other external factors.
- Tests cannot validly measure individual abilities or accomplishments through the medium of group tests since the ultimate criterion involves the extent to which a student has succeeded in achieving up to his particular personal potentials. Tests, therefore, will not necessarily diagnose *individual* learning difficulties or identify specific failures. They will not indicate in any way the effect of the testing upon an individual student's study habits or learning efforts, or guarantee a wise use of resultant scores in terms of pupil guidance and recommendations for remedial activities.
- Tests and test results reveal very little, except in most general terms, of the imagination, knowledge, skill, or experiences utilized by the test maker, the test administrator, and the teacher. Yet, if tests are to be effective contributors to the learning process, we cannot devote our attention solely to the pupil's performance; we must also evaluate our own professional role as test-constructors and test-users. Subsequent to the analysis of the test scores, for example, was adequate consideration given to the possibility of improving the construction of the test, improving its administration, or revising teaching or remedial procedures in line with the pertinent educational objectives?

General Limitations

- Tests are likely to tell very little of the true value, overall, of the person tested. Historical records, for example, would strongly tend to indicate that Charles Darwin would have done rather poorly on any test involving scholastic or athletic aptitude, while Socrates almost certainly would have flunked any test in music or in marital relations.
- Tests will provide no substitute for a sound curriculum, excellent teaching, good remedial and guidance programs, and other essential components of a fine instructional program. Testing should be an integral part of, and not separate from, this total program for instruction.
- Tests do not indicate anything with respect to the quantity of true knowledge which we—as test-makers, test-administrators, educators, or citizens—may possess about the nature of that which we are trying to measure. With our present limited levels of knowledge, it is not possible, all potential factors considered, to report even with minimum exactitude how much—or how little—may have been learned by any given individual in any given educational situation, let alone how much that individual may have learned as a result of his subjection to six or twelve or eighteen years of the educational process.

Tests, like axes, have no inherent value or utility in or of or by themselves. At best, they are little more than crude and tentative indicators of possibility or probability. When used with imagination, knowledge, skill, and experience, however, tests—like axes, in other circumstances—can be enormously useful tools of assistance in the attempt to construct a house of learning.

The Department of Elementary School Principals of the National Education Association requested the NEA Research Division to poll a representative sample of the nation's elementary school principals on questions of current interest in elementary education. The results of the Research Division's poll will be presented in two articles: opinions on organization of the elementary school in this issue of The National Elementary Principal *and opinions on certain aspects of the instructional program in the January issue.*

PRINCIPALS' OPINIONS about school organization

GLEN ROBINSON

THE ferment in education has raised many questions about elementary schools: How should they be organized? What size of class is most desirable? How should pupils be grouped? No persons in the country are better qualified to give enlightened opinions on such questions than are elementary school principals.

In the spring of 1961, the Research Division of the National Education Association, using its newly developed small-sample techniques, asked 721 elementary school principals for their opinions on questions of current interest in elementary education. This representative sample of principals was carefully selected by a stratified-random process in which all school districts in the nation were grouped according to the number of teachers employed: *large districts,* those with 1000 or more teachers; *medium districts,* with 50 to 1000 teachers; and *small districts,* with fewer than 50 teachers. All principals in school districts of comparable size had the same chance of being selected in the sample.

A surprisingly high proportion—98 percent—of the principals responded to the questionnaire mailed them.

The paragraphs below summarize the principals' opinions on questions pertaining to elementary school organization.

How Large Should a School Be?

The size of elementary school that is best for effective instruction, supervision, and administration obviously depends upon many variables. But taking them all into consideration, 50 percent of the elementary school principals of the nation believed that the most desirable size is between 269 and 523 pupils. This was the interquartile range of opinion for the sample.

When opinions were grouped in 100 pupil intervals, the largest group of principals favored schools having 400 to 500 pupils. The size of school favored by the median elementary school principal was 421 pupils.

Answers to the question, "What size elementary school do you think is most desirable for effective instruction, supervision, and administration?" were distributed as follows:

Size of School	Percent of Principals
Fewer than 200 pupils	14.6%
200 to 300 pupils	15.1
300 to 400 pupils	14.8
400 to 500 pupils	26.1
500 to 600 pupils	18.7
600 to 700 pupils	6.3
700 to 800 pupils	1.9
800 to 900 pupils	0.9
900 or more	1.6

1st quartile, 269 pupils; median, 421 pupils; 3rd quartile, 523 pupils.

Opinions of principals on what constitutes good school size were found to be related to the size of the school they were administering. A correlation coefficient of $r = .48$ was found between the size of school administered and the size of school believed desirable. This correlation

Glen Robinson is Assistant Director, Research Division, National Education Association, Washington, D. C.

indicates a substantial relationship between opinions and size of school being administered.

What Grades Should Be Included?

The largest proportion of principals favored an elementary school with 400 to 500 pupils. But what grades should the school include?

Since there appeared to be little question of the desirability of including the kindergarten through grade 6 in an elementary school, the poll focused on grades 7 and 8. The problem of whether grades 7 and 8 should be included was approached from the direction of pupil welfare with the following question:

> Considering their all-round personal and educational development, which, in your opinion, is the best organization for educating pupils in grades 7 and 8?
>
> ___ An 8-grade elementary school
> ___ A 3-year junior high school (grades 7, 8, and 9)
> ___ A 2-year junior high school (grades 7 and 8)
> ___ A 6-year high school (grades 6 through 12)
> ___ Makes little or no difference
> ___ Undecided

The desirability of pupils in the seventh and eighth grades being in a junior high school is unmistakably clear from the responses to the question: Three-fourths of the principals considered a junior high school organization best for the all-round development of children in these grades. Fewer than 1 in 5 believed an eight-grade elementary school best.

The distribution of preferences for placement of the seventh and eighth grades was:

Preferences	Percent of principals by district size			
	Large	Medium	Small	All
8-grade elem. school	17.4%	16.8%	19.6%	18.3%
3-year jr. h.s.	64.1	53.0	46.8	51.0
2-year jr. h.s.	12.1	23.5	24.9	23.1
6-year h.s.	2.6	2.2	2.6	2.5
Makes little or no difference	1.5	0.8	0.8	0.8
Undecided	2.3	3.7	5.3	4.3

There was unusual consistency of opinion among the principals on this point. The size of the school district in which principals were employed had little effect on their opinion regarding the desirability of placing children in grades 7 and 8 in a junior high school pattern. The larger the district, however, the more inclined principals were to favor the three-year junior high school.

Self-Contained or Departmentalized?

How should the elementary school be organized—on a self-contained or on a departmentalized basis? This question frequently evokes lively debate in both professional and lay groups. The mention of it will cause persons to take sides. Some will proclaim the virtues of the self-contained classroom with one teacher responsible for the educational experience of a group of pupils and having close contact with a small number of children. Others will declare the superiority of the departmentalized approach, which permits subject-matter specialization and the utilization of the strengths of several teachers.

To learn how principals across the nation view the problem of organization for instruction, the following question was asked:

> Considering all of the pros and cons of self-contained classrooms vs. departmentalization, which, in your opinion, is the best plan for organizing elementary-school instruction?

From their answers, there can be no doubt that the majority of principals preferred self-contained classrooms: 70 percent either "strongly" or "tended" to prefer it. Only 30 percent "tended to prefer" or "strongly preferred" departmentalization. There was little difference between the opinions of principals in small districts and the opinions of principals in large districts.

Responses to the question were distributed as follows:

Preferences	Percent of principals by district size			
	Large	Medium	Small	All
Strongly prefer self-contained classrooms	28.9%	34.2%	27.3%	30.2%
Tend to prefer self-contained classrooms	39.6	34.6	44.7	40.1
Tend to prefer departmentalization	25.6	25.3	22.0	23.7
Strongly prefer departmentalization	5.9	5.9	6.0	6.0

Those principals who preferred or tended to prefer departmentalization were asked which

grades they would departmentalize. The question was:

If you checked either "prefer" or "tend to prefer" departmentalization in the previous question, at what grade levels do you recommend departmentalization?

Begin departmentalization at	Percent of those recommending departmentalization
First	1.5%
Second	1.8
Third	3.9
Fourth	31.9
Fifth	18.0
Sixth	19.1
Seventh	23.3
Eighth	0.5

Only 7 percent of those preferring departmentalization recommended that the procedure begin below grade 4.

Nearly one-fourth of the 30 percent who preferred or tended to prefer departmentalization recommended that the practice not begin before grade 7. Since principals are generally of the opinion that elementary schools should not include grades 7 and 8, those principals not recommending departmentalization before grade 7 should be subtracted from those preferring or tending to prefer departmentalization. When this was done, the percentage in favor of departmentalization was reduced from 30 to 24 percent.

The following question was also asked of the principals who favored departmentalization.

If you prefer or tend to prefer departmentalization, what subjects or areas do you believe should be departmentalized?

The percent of principals favoring departmentalization for specified subjects were:

Subject or area [1]	Percent of principals recommending departmentalization
Science	61.2%
Mathematics	60.7
English	54.1
Social Studies	39.7
Music and Art	27.8
Physical Education	19.8
All subjects	13.1

1. Subjects specified by less than 10 percent of the principals favoring departmentalization not included.

The most frequently specified subjects were science and mathematics: 61 percent of the principals who favored departmentalization said these subjects should be departmentalized. Next came English, mentioned by 54 percent; then social studies, mentioned by 40 percent.

To find the present status of self-contained and departmentalized organization, all principals were asked:

How is your school organized in grades 1 through 6?

The answers indicated two major divisions, with 42 percent of the schools having all grades self-contained for all subjects and 40 percent of the schools having all grades self-contained except for special areas such as music and art. Only 9 percent of the principals reported that just the upper grades were departmentalized.

Type of organization reported	Percent of schools by district size			
	Large	Medium	Small	All
All grades self-contained for all instructional areas	49.1%	45.6%	38.4%	42.4%
All grades self-contained except for special areas such as music and art	28.5	39.6	43.3	40.3
Primary grades self-contained, upper grades departmentalized	12.0	10.4	7.6	9.2
Other	10.4	4.4	10.7	8.1

An interesting finding presented in the preceding table is that a higher percentage of the principals in the small school systems than in the large systems reported special subjects departmentalized. One explanation is that the small school systems tend to have itinerant teachers for subjects such as music and art while the large systems tend to have supervisors in these areas with the classroom teacher instructing the pupils.

Since it was assumed that the self-contained classroom is the prevailing pattern of organization in elementary schools, a question was included to ascertain whether or not principals felt pressure for such schools to be departmentalized. The question was worded:

If your school is presently organized on a self-contained classroom basis, is there pressure for your school to change to a departmentalized organization?

The principals were asked to check the degree of pressure they felt both from the community and from teachers.

The responses indicated that only a small proportion of principals in schools operating on a self-contained classroom basis felt community pressure to departmentalize. A somewhat higher proportion felt teacher pressure, but the majority reported no pressure. The replies of those principals whose schools were either all self-contained for all instructional areas or all self-contained except for special areas such as music and art were as follows:

Degree of pressure	From community	From teachers
Yes, much	0.2%	0.5%
Yes, some	10.5	22.6
No, none	89.3	76.9

What Is the Best Size Class?

The problem of class size perplexes principals and other persons concerned with cost-quality relationships in instruction. What is the best size class for effective teaching? To obtain principals' opinions on this important problem, the following question was asked:

In your opinion, what is the best size for most elementary school classes for effective teaching?

Ninety-seven percent of the principals said a class smaller than 30 pupils was needed for effective teaching; 52 percent said a class of 20 to 25 pupils was best. Less than 3 percent indicated a class of 30 to 35. Only one principal in the sample indicated a class size of 35 or above. The median size for the group was 24 pupils per class. The range of opinion was as follows:

Number of pupils per class	Percent of Principals
Fewer than 15	2.7%
15-19	11.1
20-24	51.7
25-29	31.6
30-34	2.9

1st quartile, 21 pupils; median, 24 pupils; 3rd quartile, 27 pupils.

Grouped by Ability?

Once the size of class in a school is determined, the problem of how pupils should be grouped—on the basis of ability or on other criteria—becomes paramount. Many persons with experience in elementary education believe that as a general practice pupils should not be assigned to classes on the basis of scores on mental ability or achievement tests.

Many other persons with equal experience believe that pupils should be grouped into classes on the basis of ability as measured by intelligence test scores or achievement test scores. The answers received from principals to the following question indicate the controversial nature of the problem. The question was worded:

Considering all the advantages and disadvantages of ability grouping according to IQ or achievement scores, do you favor such grouping, into separate classes, in elementary schools?

In their opinions, principals were almost equally divided: 48 percent said, yes, they favored ability grouping, and 47 percent said, no, they did not. Only 5 percent were undecided. This same division of opinion held regardless of size of the school system in which the principals were employed.

Size of district	Yes	No	No opinion
Large districts	48.9%	48.5%	2.6%
Medium districts	46.8	52.1	1.1
Small districts	48.0	43.5	8.5
All districts	47.6	47.4	5.0

Profile of an Elementary School

From the opinions reported by the sample of principals, it is possible to construct an organizational profile of an elementary school as presently preferred by the majority of the nation's elementary school principals.

Such a school would enroll between 400 and 500 pupils and employ from 17 to 21 teachers. The average size of class would be about 24 pupils. The school would contain the kindergarten through grade 6; grades 7 and 8 would be part of a three-year junior high school. Whether pupils would be assigned to classes according to ability or other criteria is uncertain. It is quite likely, however, the classrooms would be self-contained with one teacher responsible for the learning experiences of a group of pupils. Departmentalization, if any, would not be below grade 4 and would probably be in the areas of science and mathematics.

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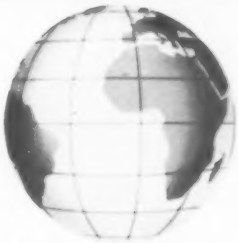

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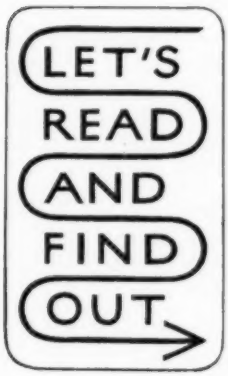

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how DESP OFFICERS are nominated and elected

IN January, the members of the Department of Elementary School Principals, NEA, will elect four new members to the Executive Committee. How does someone become a member of the Executive Committee? What are the qualifications? Who makes the nominations? How is the election conducted?

Election of Nominating Committee

The constitution provides that the Executive Committee shall elect annually a five-member Nominating Committee. The Executive Committee has adopted the following criteria to govern the election of the Nominating Committee.

- Persons named to the Nominating Committee should: 1) Hold membership in state and national associations of elementary school principals; 2) Be known for leadership in professional association work—state and national; 3) Have wide acquaintance with elementary school principals; and 4) Be familiar with the purposes and organization of the national Department.
- Other factors to consider are: 1) Balance of men and women; 2) Appropriate geographical spread; 3) Preferability of electing persons to the Nominating Committee from states not currently represented on the Executive Committee; and 4) Advisability of reelecting one member of the previous year's Nominating Committee for a second year.

Using these criteria, the Executive Committee meets in closed session and elects the Nominating Committee by secret ballot.

Work of the Nominating Committee

The Nominating Committee traditionally meets late in September. They work in closed session without any member of the Executive Committee or headquarters staff being present when the slate is drawn up.

The constitution provides that officers shall be active members of the DESP and that the Nominating Committee shall submit "at least two names . . . for each office to be filled, giving consideration to qualifications and geographical representation." In addition, the Nominating Committee has established the following guidelines for selection.

- Consider present members of the Executive Committee if they choose to be nominated.
- Consider recommendations from state and local associations of elementary school principals.
- Provide for adequate geographical representation and give serious consideration to states that have never been represented.
- Use all available data in the study of persons considered for the ballot.
- Consider persons who have demonstrated interest and leadership in professional associations and are respected as educational leaders in their own schools.
- Keep in mind a balance of men and women.
- Keep in mind persons who are not currently serving on other important Department committees.
- Do not consider former members of the Nominating Committee until two years have elapsed since their service on the Committee.

To secure information about persons being considered for the ballot, the Nominating Committee has access to all records in the headquarters office and has customarily consulted leaders throughout the country by telephone.

Election Procedure

The names of candidates are published in *The National Elementary Principal* and the slate is also mailed directly to state presidents and state representatives.

Ballots are mailed early in January to all active members. Included with the ballots is information about the candidates. The returned ballots are counted by an Election Committee, consisting of three or more active members, which is appointed by the president. This Committee certifies the results of the election to the Executive Committee and membership. Successful candidates take office the following June 1 and serve for the length of time provided in the constitution.

CANDIDATES FOR DESP

For President-Elect

ORVILLE B. AFTRETH

ORVILLE B. AFTRETH—B.S. 1936, M.A. 1947, Ph.D., 1953, University of Minnesota.

DESP activities: Vice-president, 1961-62. Group recorder, Minneapolis regional conference on preparation for the principalship, 1957; convention discussion group leader, coordinator, 1957-60; DESP rep. to the Natl. Science Teachers Assn's Research Comm. on Improving the Teaching of Science in the Elementary Schools, 1960. 1961 convention, speaker, principal to superintendent interview; consultant for Education Consultant Center.

Other professional activities: Member, NEA, Minnesota Ed. Assn., Minnesota EPA, Minneapolis EPA, Minneapolis Ed. Assn., Minnesota ASCD, Phi Delta Kappa. President, Minneapolis EPA, 1957; Minnesota DESP, 1958-60. Member, Governor's Advisory Committee on Physical Fitness, 1958-61; Governor's Task Force To Evaluate Minnesota State Colleges, 1959; Minnesota DESP Executive Board since 1957.

Professional positions: Teacher, Alvarado, Minnesota, 1936-37; Robbinsdale, Minnesota, 1937-46; guidance counselor, 1946-48; principal, 1946-52, Robbinsdale, Minnesota; principal, Minneapolis, Minnesota, since 1952; currently principal of Sidney Pratt and Motley Elementary Schools, Minneapolis, Minnesota.

OLIVE A. LOWRY

OLIVE A. LOWRY—B.A. 1940, Eastern Washington State College; M.Ed. 1959, Gonzaga University.

DESP activities: Vice-president, 1958-59; member-at-large, 1959-62. Exec. Comm. rep. on DESP College and University Relationships Comm., 1959-61. DESP rep. to meeting of Western Reserve, Alaska Ed. Assn. and Montana EPA, 1961. Seminar leader, recorder, 1960-61 DESP summer workshops. Conv. discussion leader, consultant, 1958-59; asst. gen. coord., consultant centers, 1960.

Other professional activities: Member, NEA, WEA, Spokane Ed. Assn., Inland Empire Ed. Assn., Spokane EPA, Wash. ESPA, Northwest DESP, ACEI, ASCD, Wash. PTA, Delta Kappa Gamma. Delegate to Rep. Assem. and member, Membership Comm., Wash. Ed. Assn. Member, Tchr. Ed. and Prof. Stnds. Comm. and Membership Comm., Spokane Ed. Assn. Exec. Sec., Northwest DESP, 1954-56. Sec., Spokane EPA. Regional Dir., 1955-57, and member, Exec. Brd., 1958-62, Wash. ESPA. Chrm., College-Univ. Relationship Comm., Wash. PTA. Member, Spokane Testing Comm. since 1955, chrm., 1960-61; Curr. Council; Finance and Research Comm.

Professional positions: Elem. schl. tchr. in Wash., 1935-45; head teacher, Spokane, 1945-47; elem. prin., Spokane, since 1947. Currently principal, Madison School, Spokane, Wash.

EXECUTIVE COMMITTEE

For Vice-President

HELEN R. ROUSE—B.S. 1938, Rutgers University; M.A. 1947, Northwestern University.

DESP activities: Member, committee for Annual Meeting, 1951; New Jersey state representative, 1960; convention consultant, 1957-60; local coordinator, 1961 convention.

Other professional activities: Life member, NEA, New Jersey Congress of Parents and Teachers. Member, New Jersey Department of Elementary School Principals, New Jersey Education Association, Association for Supervision and Curriculum Development, Atlantic City and Atlantic County Education Associations. Member, Headquarters Committee, New Jersey Education Association, 1952-53. Member, New Jersey Department of Elementary School Principals' Executive Board, 1951-61; New Jersey DESP secretary, 1956; president-elect, 1957; president, 1958.

Professional positions: Teacher in the elementary schools of Absecon, Egg Harbor, and Ventnor City, New Jersey, 1926-45. Atlantic City, New Jersey, helping teacher, 1945-49; instructor, Summer School, Mercer University, Macon, Georgia, 1945-49; elementary school principal, Atlantic City, New Jersey, since 1949. Currently principal, Brighton Avenue School, Atlantic City, New Jersey.

HELEN R. ROUSE

HELEN I. WAIDE—B.A. 1934, Mary Baldwin College; M.A. 1941, Columbia University.

DESP activities: DESP representative to National Citizenship Conference, 1955, and to Regional Health Conference, 1956. Virginia state representative, 1955-56. Convention section summarizer, 1956; convention discussion group recorder, leader, and consultant, 1954, 1957, 1958, 1960. Member, DESP Resolutions Committee, 1961.

Other professional activities: Member, NEA, VEA, Virginia DESP, Alexandria DESP. Life member, PTA. President, Virginia DESP, 1956-58; vice-president, Alexandria Ed. Assn., 1955. Chmn., Alexandria Principals' Assn., 1947; Research Chmn., Virginia DESP, 1955. Member, Status Committee, Virginia DESP, 1955-56. Staff member, Virginia DESP summer workshop, William and Mary College, 1957 and 1958. Chmn., Alexandria Schools In-Service Ed. Committee, 1957-59. Coordinator, Regional Conference, Virginia DESP, 1960-61. Presently, Chmn., Alexandria Schools Evaluation Committee.

Professional positions: Elementary teacher, Staunton, Va., 1934-41; Alexandria, Va., 1941-43. Principal, Alexandria, Va., since 1943. Currently, principal, Minnie Howard School, Va.

HELEN I. WAIDE

For Member-at-Large (two to be elected)

RUTH RAMSAY

RUTH RAMSAY—B.S. 1935, William Carey College; M.A. 1955, Mississippi Southern College.

Other professional activities: Member, National Education Association, Mississippi Education Association, Gulfport Education Association, Mississippi Elementary School Principals Association, Mississippi Association School Administrators, Delta Kappa Gamma, Kappa Delta Pi, International, Magnolia and Seashore Reading Associations. Presently state president, Mississippi Elementary School Principals; second vice-president, Delta Kappa Gamma; Executive Board, Gulfport Education Association; member, research committee, Mississipi Association School Administrators. Chairman, District Five, Mississippi Elementary Principals, 1960; panel member, Southeastern Conference, Elementary Principals, 1960; member, planning committee. Southeastern Conference, 1961. Presented life membership by the Mississippi Congress of Parents and Teachers, 1959.

Professional positions: Rural public school music teacher, 1935-36; elementary teacher, Biloxi, Mississippi, 1936-40; Gulfport, Mississippi, 1942-53; principal, Gulfport, Mississippi, since 1953; currently principal of the Central Elementary School, Gulfport, Mississippi.

JULIA B. SCHMIDT

JULIA B. SCHMIDT—B.A. 1926, Harris Teachers College; M.A. 1942, Teachers College, Columbia University.

DESP activities: Local coordinator, St. Louis convention planning committee, 1950; member, Civil Defense Study Committee, 1953; group leader, Asilomar summer workshop, 1951; convention discussion leader, 1958; local convention committee, 1960.

Other professional activities: Life member, National Education Association; Member, Missouri State Teachers Association, ASCD, Missouri DESP, St. Louis Women Principals Club, Elementary School Principals Association of St. Louis, National Council of Administrative Women in Education of Greater St. Louis, Delta Kappa Gamma. President, St. Louis District, MSTA, 1955-57; member, Executive Committee, MSTA, since 1955; St. Louis ESPA treasurer, 1947-51, vice-president and program chairman, 1952-53, president, 1954-55. Missouri DESP secretary-treasurer, 1954-55; vice-president, 1956; president 1957. Member, Board of Directors, NEA, 1961.

Professional positions: Teacher, 1920-35 and 1938-40, St. Louis; Member, National Staff, Girl Scouts, Inc., 1935-38; elementary school principal, St. Louis, since 1941. Currently principal, John J. Maddox and Henry T. Blow Schools, St. Louis.

BERNARD J. WATSON—B.A. 1936, San Jose State College; M.A. 1950, Stanford University.

DESP activities: Convention discussion group leader, coordinator, 1958, 1959. Member, Planning Committee, Southwest Conference on Preparation for the Principalship, 1962.

Other professional activities: Member, NEA, CTA, SJTA, CESSA, Phi Delta Kappa. President, California Elementary School Administrators Association, 1958-59; president, Bay Section, CESAA, 1952-53. Member, State Executive Board, CESAA, 1951-60. Editor, *California Elementary Administrator*, 1954-56; editor, *Science News Bulletin*, San Jose City Schools, 1950-54. Member, Editorial Board, *California Journal of Elementary Education*, 1958-59; member, National Advisory Board, Arrow Book Club Scholastic Book Services, 1960-62; member, Governor's White House Conference on Education, 1956; member, Governor's Statewide Conference on Science and Mathematics, 1958.

Professional positions: Teacher, Livingston, Calif., 1937-40; teaching principal, Campbell, Calif., 1940-42; teaching principal, Saratoga, Calif., 1942-46; supervising principal, San Jose Unified School District, San Jose, Calif., 1946-61; currently, principal, Schallenberger Elementary School, San Jose, California.

BERNARD J. WATSON

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ERNEST E. WEEKS

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TEACHER SELECTION and Personality Assessment

HERBERT ZIMILES

SOME of the character of the interaction between effective learning and healthy personality has been delineated by Barbara Biber in the first article of this series ("Effective Learning and Healthy Personality" in the September issue). Her paper deals with a broadened view of the school's responsibility, one which extends beyond the goal of teaching subject matter to include the development of independent thinking, feelings of competence, and individuality.

If one accepts her characterization of the learning process and apprehends the intrinsic relationship between learning and personality functioning, then the relationship between teaching and personality functioning falls into focus. Increasingly, it is being recognized that the personality of the teacher not only contributes to the socio-emotional climate of the class and the child's image of adulthood, but also fundamentally influences the teacher's own cognitive capacities, his curiosity and originality, the flexibility and vigor of his thinking. It follows, then, that any thorough attempt to assess the resources and capabilities of a teacher must give serious attention to his personality structure.

This realization has led to considerable research concerned with the measurement of selected aspects of teacher personality for the purpose of predicting teacher performance. The goal is to provide a method of measuring teacher personality that is both valid and efficient, one that ultimately may be used for the training, selection, and placement of teachers. The course of such research proceeds slowly, and although there are isolated reports of moderately successful studies, the work is only beginning and it will be a long time before psychologists devise instruments for measuring personality which possess such precision and validity that their widespread systematic use will be justified. Nevertheless, this research activity has much to offer the school administrator who is concerned with essentially the same problem. This article will discuss some of the implications of this work.

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Before proceeding, it is important to note one point. In her article, Dr. Biber observed that anxiety is aroused when the concept of personality change is introduced in a discussion of school objectives. The same anxiety is likely to be evoked when the question of personality measurement for the purpose of teacher selection is raised. There is a feeling that such considerations represent a dangerous and inappropriate extension of influence and investigation. In reality, they constitute little more than formal, explicit recognition of a state of affairs that has always existed and will continue to exist. The child's school experience has always had an impact on his personality, irrespective of the school official's awareness of the existence and nature of this impact. And, be it conscious or unconscious, the judgment of a teacher candidate's personality has almost always affected decisions on his selection and placement.

While formal recognition of these issues may tend to increase their relative importance, surely it is prudent to maximize our awareness and control of whatever forces for change and decision influence so important a sphere of life. The issue of the ethical or political propriety of using personality tests as aids in the selection of teachers is academic at present because of the unavailability of suitable tests, but it is an issue that sooner or later will have to be faced.

The Criterion: A Measure of Teacher Performance

Teacher personality studies attempt to establish a relationship between a measure of person-

ality and an index of teaching performance. Insofar as these studies are concerned with prediction, the relationship that is studied is that between personality test scores and *future* rather than concurrent teaching performance. The predictive success of these studies is established by the magnitude of such a relationship, by a correlation between the personality measurement and the teaching performance.

Only a few studies report really high correlation coefficients between test scores and the criterion.[1] But how realistic is it to expect anything even approaching an invariant relationship between personality test performance and enactment of the teacher role? How useful are correlations that are relatively low? And what do such correlations tell us about the relationship between personality and teaching?

It has already been mentioned that the success of the personality test as a predictor of teaching performance is indicated by its correlation with the criterion. The criterion would appear to be secondary; undertaking the study in a sense presupposes the availability of a suitable criterion measure. The issue at stake is whether a personality test or tests can be found which will relate to the criterion, not whether it is feasible to measure teaching performance so that it may serve as a standard of comparison for personality test performance. Such a view of the typical study may be likened to an equation with one unknown—in this case, the predictor. Yet many realistic researchers have come to recognize that the criterion is almost as much of an unknown quantity, so that to a considerable degree we are dealing with an equation with two unknowns.

Problems of Measuring Performance

The problem of adequate measurement of teaching performance expresses itself at the conceptual or theoretical level; at the technical level —the problems associated with quantification; and at the reality level—the level of feasibility. These are separate but not independent levels of analysis. The final criterion measure is the result of an interaction of all three.

Certainly, most fundamental and most stimulating is the issue of conceptualization. In describing the performance of a teacher, what ideas are most central? Which aspects of the teaching process are most significant? Which ones really make a difference in terms of what we regard as the basic objectives of the teacher role? Can questions like these be answered in the absolute, or do our goals vary with the character of the student population and the nature of the teaching situation?

Technical considerations make further demands. These basic themes of teaching not only must be articulated, but also must be expressed as variables in quantitative fashion. Without quantitative form, it is almost impossible to describe, let alone evaluate, the research result.

Finally, elements of feasibility and practicality combine with problems of method. Some observation procedure must be adopted if criterion data are to be collected from those individuals whose personality has been assessed. This raises a number of issues. Are experienced, capable people available to conduct such observations? Are there enough observers to ensure the objectivity of the teacher evaluation? Has a satisfactory method for recording these observations been devised? What effect does the observation process have on the teacher? Is the effect always the same with all teachers? Does observation at any given time really provide information about characteristic teaching behavior on other occasions? How stable is teaching performance anyway?

Inevitably, most research studies concerned with this problem will be wanting at one level or another—at the basic level of conceptualizing the teaching process, or at the level at which these ideas are transformed to fit quantitative specification, or at the level of the concrete operations performed to obtain the criterion data.

In a recently completed teacher personality study with which the writer has been associated at Bank Street College of Education,[2] all of the aforementioned problems were encountered. A series of 17 dimensions of classroom functioning were designated to serve as the criterion. For each of these dimensions, annotated ratings along a

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1. Criterion is the term applied to that measure which serves as the standard of comparison in the validation of a psychological test. In this case, the criterion is a measure of teaching performance.

2. This project has received support from the Field Foundation, Ittleson Family Foundation, NIMH grants #3M-9135 and #MH-215, Old Dominion Foundation. A paper describing this study, *Personality Aspects of Teaching: A Predictive Study*, is in preparation by H. Zimiles, W. Rabinowitz, L. Hay, and B. Biber.

five-point scale were made by each observer immediately after her observation was completed. Four persons, all of them experienced educators, observed each of the teachers in the study.

The design for the collection of criterion data raised a host of questions. Were the 17 dimensions which defined the criterion adequate for the purposes of assessing the salient qualities of teaching performance? Could judgments regarding these 17 variables be meaningfully expressed in the form of numerical ratings? Were four observations, each conducted by a different observer on different occasions, sufficient to permit a reliable estimate of teaching performance? At the criterion level, the resources of this study were mainly deployed to obtain expert, experienced observers and to provide for each teacher to be seen by as many different observers as possible.

As far as the content of the judgments was concerned, the goal was to obtain as differentiated a picture of the teacher as possible by focusing on a relatively large number of variables. This entailed the sacrifice of more intensive study, which would have required longer periods of observation by fewer observers along fewer classroom dimensions. In the Bank Street study, in order to enhance the depth of information gathered from teachers and add perspective, each teacher was interviewed after the final observation.

Finally, the selection of criterion variables limits the applicability of the research. In teacher personality research, perhaps more than in other areas, the individual seeking to apply research findings must evaluate a study not only with regard to its technical adequacy and degree of correspondence between the conditions and population of the study and those in the actual field of application, but also in terms of the congruence between the theory underlying the definition of criterion measures in the study and his own theoretical framework. Empirically based relationships between variables must involve theoretically meaningful concepts if they are to be usable.

The Personality Test—How Useful?

Turning to the other part of the personality assessment equation, to the personality test used as the predictor, the central issue is this: Can personality tests be used to predict teaching performance? This is really asking two questions. First, does the test employed as the predictor really measure personality? And second, is the personality characteristic measured by this test related to the criterion behavior specified in the present study? Insofar as a perfect relationship is not obtained between predictor and criterion, a completely affirmative answer cannot be given to both questions. Yet it is virtually impossible to assay the relative contributions of these sources of error when prediction is not perfect, as it never is. One problem is associated with the theoretical issue with which we began; the other is a methodology issue associated with personality measurement.

One of the most perplexing problems confronting the assessment psychologist is that no method exists for decisively establishing the validity of a personality test in the abstract. It is for this reason that the selection of a particular test or tests to serve as predictors in an assessment study is so largely an arbitrary matter. The ultimate usefulness of a personality test for predicting behavior can seldom be determined in advance by consulting some index of its validity. Rather, it must be determined empirically in the particular situation in question.

Types of Personality Tests

Two general kinds of personality tests may be used. The *personality inventory type* includes a long series of statements conceptually related to a particular personality variable. The examinee is required to indicate which statements are characteristic of him or, in some cases, the degree to which such statements are characteristic of him. These tests have the virtue of imposing strict control over the test situation by restricting the variability of responses to "yes" or "no" statements or to simple numerical ratings. The data so obtained are orderly and quantifiable; they represent the utmost in standardization of personality measurement. The tests can be administered and scored efficiently and objectively. Attractive as these instruments are from many standpoints, there is serious question whether the richness and depth of what the term personality connotes can be communicated by responding in yes-no fashion to however impressive a series of statements. So far, such tests have succeeded in measuring only surface traits of personality.

An alternative to the personality inventory is the *projective personality test*. Here the examinee

is required to respond with his associations to a series of ambiguous stimuli. The test is administered on a face-to-face basis, the test stimuli selected specifically in terms of their capacity to elicit personality revealing behavior. The open-ended quality of such tests makes them more complicated to administer and to score. They are much less objectively scored and are standardized only in the sense that the same test stimuli are presented to each examinee. The advantage of such instruments is that they are much more likely to communicate individuality and portray deeper levels of personality functioning. At present, it is perhaps most accurate to describe such tests as *providing access* to the personality of the testee. Psychologists are only beginning to develop reliable methods for the systematic, valid interpretation of such test records.

In the Bank Street study, both types of personality tests were included in the test battery which served as a predictor. In addition to two widely used personality inventories, a set of more projective type tests was employed. Among the projective techniques was a test that consisted of a group of autobiographical questions and a test that required the subjects to complete a series of incomplete sentences—"Teaching becomes difficult when . . ." or "My greatest asset is . . ." Still another projective test required our subjects to draw a picture of a teacher in class. Another, the Cartoon Situations Test,[3] depicted a series of dilemma situations involving teachers, parents, and children in cartoon form to which the subject was asked to respond. In general, the inventory tests were less successful predictors of teaching performance than the projective tests.

Implications for the School Administrator

Considering the imperfect quality of the personality test as a measuring device, it is easy to see why teacher personality research is in such a rudimentary state. Recognizing this fact, what implications does this research have for the school administrator who cannot wait for technical progress and must make judgments on the basis of existing knowledge and methods?

Despite the incomplete character of the work in this field, the results that are available may contribute both at the level of concrete suggestions and in fostering an attitude of caution and realism with respect to the prediction task at hand.

First, some important differences between the task of the school administrator and the research psychologist should be noted, differences which suggest that the findings of research studies should not necessarily be regarded as indicative of the results of the actual practitioner.

The school administrator confronted with the actual task of selecting teachers is in a more favorable position than the researcher in a number of respects. Perhaps most important is the fact that the predictive judgments of the administrator are usually made within a framework of greater familiarity with the setting in which the criterion will be enacted. The researcher seldom has the time or opportunity to understand thoroughly all the forces impinging on the teacher in a particular classroom. His choice of criterion variables for evaluating teaching performance is likely to be determined by abstract theoretical considerations rather than by the specifics of the situation. He usually lacks information about the applicability of such concepts to the specific situation under study, the degree to which the realities of the teaching situation constrain or distort the expression of various teaching abilities. By contrast, the astute administrator has an opportunity to learn the teacher characteristics that are most salient for a particular teaching situation. In this sense, he is in a much better position to predict the relationship of personality attributes to the criterion.

In judging personality, the school administrator has the advantage of dealing with a real prediction situation rather than with an experiment. Unless the subjects believe that their personality assessment will really make a difference to them professionally, many respond in a more limited, atypical manner. The school administrator always deals with a real situation, with an optimally motivated candidate. He is, therefore, much more likely to receive fuller, more usable information. Availability of cooperative sources of information is virtually necessary for the achievement of appreciable success in personality based prediction.

In addition, the school administrator is usually confronted with a less complex judgment task. He usually deals with a relatively small number of

3. Shapiro, E., Biber, B., and Minuchin, P. "The Cartoon Situations Test: A Semi-Structured Technique for Assessing Aspects of Personality Pertinent to the Teaching Process." *Journal of Projective Techniques* 21:172-184; 1957.

candidates from which he must select a smaller group that he regards as best. His decision then involves comparative judgments—choosing those that rank highest; he is not required to provide an independent assessment of each candidate on an absolute basis, as the experimental design of the researcher often dictates. Usually, such absolute judgment can be made with less accuracy so that the predictive effectiveness of the researcher is correspondingly reduced.

On the other hand, the school administrator often works in greater isolation. He seldom is in a position to receive objective feedback about the effectiveness of his predictions. He both makes the predictions and later evaluates the criterion. When the predictor and the criterion are measured by the same person, they are no longer independent bodies of data. Under such circumstances, it is virtually impossible to arrive at a realistic appraisal of one's predictive effectiveness; it is easy to fall prey to self-doubt or self-deception. It is at this point that the literature in teacher personality may be useful.

The research literature aids by identifying the methodological pitfalls, by offering concrete suggestions with respect to both method and concepts. The researchers have helped to delineate the problem of adequate measurement of the criterion. The administrator is likely to learn, for example, that often what appear to be differentiated judgments of a teacher's performance in a classroom, judgments along a variety of dimensions of classroom behavior, are in reality largely attributable to a single overall attitude toward the teacher which is expressed in the form of a number of seemingly independent specific statements.

The struggles that researchers undergo to identify, define, and measure variables of teaching performance dramatize the fact that basic ideas regarding the goals and process of teaching have not yet received sufficient clarity. Such studies introduce new ways of articulating and differentiating the classroom setting. Advances in measurement, in theory, and in understanding can proceed only as rapidly as salient variables are identified and described. Research needs to be evaluated not only in terms of how it facilitates prediction but also in terms of the usefulness of the concepts it has stimulated. For example, one of the significant gains of the Bank Street study was the development of a scheme for describing teaching performance in terms of five organizing categories: relatedness to children, adult authority role, teaching power, psychological understanding, and personal-professional equilibrium.

Perhaps it is in the position of personality assessor that the school administrator is farthest from his element and can learn most from the research psychologist. He will be introduced to new methods of conceptualizing personality which may result in a broadened and more differentiated perception of people. His skill in interpreting behavior is likely to be enhanced. His exposure to projective tests will acquaint him with methods for eliciting more covert aspects of personality functioning and sharpen his interview technique. Most of all, he is likely to gain perspective; he is sure to eliminate misconceptions about the magical or hopeless character of personality assessment.

The results of the Bank Street study suggest that moderate degrees of success in predicting teaching performance may be achieved with particular tests. The predictive success among the judges who scored the projective tests varied considerably, with those judges who through their own professional experience were more familiar with the details of the enactment of the teacher role tending to show greater accuracy of prediction. Perhaps the most striking conclusion to be drawn from inspection of the predictive records of the individual tests comprising the test battery is that *predictive success must be judged on a comparative basis.* Psychological measurement has not advanced to the point where absolute standards of perfection may realistically be applied to the prediction of human behavior. Nevertheless, certain procedures of assessment and prediction appear to be superior to others. The evaluation of any prediction effort should always be made relatively, in terms of alternative existing methods. The value of providing empirical data bearing on the effectiveness of all available assessment methods is based at least partly on this consideration.

Personality assessment is not a technical problem that will be solved in short order. It is, however, a real process, one in which we all engage daily. The intimacy that we feel toward this process should not blind us to its faults or lead us to underestimate its importance. It is this sense of intimacy which requires that we become aware of more disciplined and objective investigations of this procedure.

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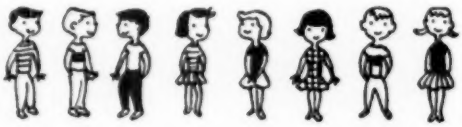

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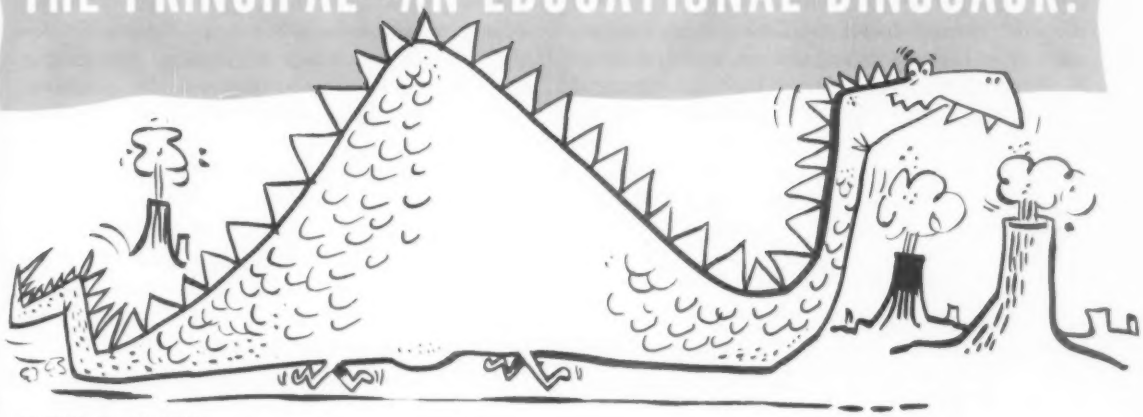
THE PRINCIPAL—AN EDUCATIONAL DINOSAUR?



ELTON B. McNEIL

PALEONTOLOGISTS have suggested a number of reasons why dinosaurs became extinct. One of the most popular explanations implies that the dinosaur grew to such a vast size that he had to devote all of his time to the task of caring for his immense bulk and was thus unable to adapt to changing circumstances and times. No one has yet proposed that dinosaurs passed out of existence because they were unable to decide *what* they ought to become.

In many respects, principals are faced with a greater challenge than the dinosaurs since the definition of the principal's role has come to be truly gigantic in scope and since principals *are* in conflict about what they ought to become if they are to survive. There is an abundance of evidence to indicate that the principal who survives will be, in Jordan's words, the man who ". . . combines the wisdom of Solomon and the patience of a saint with the hide of a rhinoceros and the stamina of a bull. . . ." [6]

Man-in-the-Middle

The casual perusal of any of the standard texts on the principalship reveals a staggering array of personality characteristics and skills the successful principal ought to possess. Jordan, for example, lists 30 elements a principal must juggle simply to tend to the fences of his educational philosophy.[6] The list of tasks fashioned for the average principal gets longer with each new table of contents since he has now become the favorite dumping ground for every new educational responsibility. Currently, he is charged with responsibility for the curriculum, teacher supervision and evaluation, staffing, admission, classification, pupil progress, records, guidance, discipline, attendance, public relations, budget, plant, transportation, assorted committee meetings, and a host of other odds and ends. It is perfectly apparent that the gap between theory and practice has reached distressing proportions, yet principals are a hardy breed and some even take a kind of obstinate pride in the very enormity of the task that confronts them.[4]

The principal has become the educational man-in-the-middle as a consequence of the vigor of American society. As the number of children eligible for public education increased and school systems expanded to meet the challenge, there was a necessary redefinition of the fundamental educational roles. The teacher's task became more complex and diffused but remained centered in the classroom. The superintendent moved to a position closer to public relations and pure administration and further from the children. The principal's role emerged as a catch-all to encompass the functions abandoned by the superintendent in addition to

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those that were created by sheer size. The principal's role grew out of the turmoil of expanding enrollments and emerged as a mutation that was neither fish nor fowl. This evolutionary event took place so gradually that the leaders of education were caught unawares and still are loathe to question the purpose or practicality of its existence. Their efforts, rather, have been directed to the task of adjusting the principal's role to fit the demands of modern society. It is an effort that cannot cope with the urban-suburbanization sweeping our society.

Democratic Leadership—An Awesome Abstraction

Since nature abhors a vacuum and educators feel equally repelled by one, an attempt has been made to bind together the principal's loose federation of responsibilities by means of an overriding philosophy of the principalship. While there exist many varieties of philosophy from which the principal may choose, the words "democracy" and "leadership" have proved the most durable and attractive generalizations. These words—"democracy" and "leadership"—have similar semantic characteristics since both are emotionally loaded and ambiguous in the extreme.

In this respect, an examination of the research literature pertinent to democratic methods of relating to groups is very much like reading a mystery novel in which you know in advance that the butler did it. It is clear that studies of democratic versus non-democratic methods of leadership devised by democratic researchers, applied to democratically oriented subjects, and conducted in a democratic society inevitably adduce findings which favor democratic methods. Such predictable research findings would be much less distressing were it not for the fact that "democracy" has so many different meanings to so many different people. Thus, admonishing a principal to be democratic does not assure us he will display a predictable pattern of behavior or methods. I am unaware of any text that spells out the fine points of democracy with enough detail to make obvious what one ought to do or how he ought to do it if he wishes to be called democratic.

The issue of leadership is no less confused. The principal soon discovers that leadership is not a definable thing-in-itself; it is, rather, a pattern of interpersonal relations and a manner of fulfilling certain role responsibilities. Its many dimensions pose a problem of selection and artful mixing of components, functions, and skills to produce what others will judge to be good or bad leadership.

An estimate of the difficulty the novice principal faces is provided by Krech and Crutchfield's description of the multitude of functions a leader can perform.[7] They point out that a leader can serve his group as an executive, a planner, a policy maker, an expert, an external representative, a controller of internal relationships, a purveyor of rewards and punishments, an arbitrator and mediator, a model of behavior, a symbol of the group, a surrogate for individual responsibility, an ideologist, a father figure, or a scapegoat. One would have to be incredibly optimistic to state that the good principal should combine all or even a substantial portion of these qualities. If these constitute the raw materials from which each leader constructs his personal pattern of leadership, it is obvious that the possible number of combinations and degrees of each is astronomical. To be sure, there is more than one way to skin the cat of leadership, and a form of success is achievable through the combination of any of a number of elements listed. The essential question for democratic leadership has to do with the degree to which it is developed on a rational problem-solving basis rather than by accident. With everyone imitating one another in the search for the ideal pattern of leadership, we must, in all honesty, ask how the principalship is going to be infused with new concepts suited for changing times.

When "democratic" and "leadership" are combined in the form of "democratic leadership," they constitute such an awesome abstraction that it passes unchallenged even by those most concerned with determining *how* the principal ought to go about the task that confronts him. Democratic leadership becomes, then, a phrase which describes the means to an end, even when that end has not been subjected to a critical scrutiny. If we carefully consider the meaning of democratic leadership, we soon discover that while everyone is in favor of it, few are sure of its exact nature.

Philosophy in the Daily Whirl

Berry and Otto have indicated that the average principal comes late to his decision to be an educational leader.[1] Since fewer than one in ten decided on the principalship as a career before the

completion of undergraduate studies and only one in three made the choice before completing his Master's degree, it would seem reasonable to suppose that the development of a unifying philosophy and a set of goals amounts to on-the-job training. While engaged in this task of learning by doing, the principal may seek advice from others or take classes devoted to administration only to learn that while there is great agreement about what principals *do* there is little consensus about what they *ought* to do. Unfortunately, as he searches for an organizing set of principles of leadership behavior, his daily job experience begins subtly to define his goals and methods for him with or without his consent.

As Jordan has pointed out, "Making a school a smoothly running organization can become so absorbing that one forgets that organization is a means and that educating children is its end . . ."[6] This statement reflects most clearly the primary pitfall of seeking to develop a philosophy out of the whirl of daily activity—running a tight ship becomes a substitute for educational purpose. In part, this occurs because a number of forces are at work to fix a substantial portion of the principal's time and the pattern of his activity. Being new to the job, he tends to see these forces as irresistible or, worse yet, he fails to consider the possibility that he might jettison some responsibilities in favor of emphasizing others. The superintendent of schools tends to prefer certain personality characteristics in his principals and to have notions about what must be done and the best manner of accomplishing it. In much the same fashion, teachers, parents, schoolboard members, other principals, and even the pupils have particular expectations about the role of the principal. If the principal responds submissively to those who would define his job for him, he soon finds there is little left to define for himself. Without a clear-cut educational view of his own, he frequently welcomes the less demanding escape route presented by "doing what has to be done." Just as the road to hell is reputed to be paved with good intentions, I suspect that each principal vows to do some thinking about where he is going just as soon as he gets his show on the road.

I would like to suggest that one of the reasons principals do not find the time to examine their personal philosophy of education is that, much as prisoners do, they fall in love with their chains. To others, the principal seems to be the only really free agent in the school building while in actuality he is its greatest slave. He has little control over how he spends his own time; yet the ability to decide what you will do and when you will do it is the hallmark of an executive and distinguishes him from his clerk.

The typical principal comes to work each morning anticipating a day full of surprises since he is shackled to the telephone, to any parent or teacher who takes advantage of his "democratic-leadership-open-door-policy," and to an assortment of skinned knees and discipline problems that never seem to end. These unpredictable events must be sandwiched in between the fixed responsibilities of committee meetings, budgets, and the like. While there is something to be said for the excitement and challenge of a succession of on-the-job surprises, it is also true that periods of planning, thinking, reading, and designing suffer inevitable interruption. It is these interruptions which unmistakably erode the initiative of the principal and reduce it to no more than a gnawing feeling that there is not enough time in the average day.

After being exposed to the psychological brain washing of constant interruption, the principal soon abandons all but the minimum necessary long-range planning. Like a hunted man, he begins unconsciously to look over his shoulder to see if he is being followed. When the pressure eases, he tends to pick up a journal he had planned to read some time ago and to glance nervously at it with one eye on the door and his ear cocked for the ring of the telephone. It is very much like waiting for the other shoe to drop since the longer he waits the worse the suspense gets. As his restlessness increases, he finally puts down the journal and wanders into the main office to see what's going on or to stand in the door to watch the children go by. This wandering and waiting doesn't last long since he is due shortly for a committee meeting anyway. The wiser of his fellow principals —at least wiser in terms of peace of mind—avoid this fate by accumulating a mountain of detail and busy work to which they can always turn their attention and which, as they plow through it, gives them a sense of accomplishment and productivity.

Admittedly, this is a dismal and overdrawn picture of the principal's task at its lowest ebb,

but it has been painted in such lurid colors to make the point that the trap of mechanical administration is an easy one to tumble into. Being an executive capable of innovation and creative appraisal of the fundamental purpose of education seems to require the redefinition of things as they are to provide for things as they ought to be. If there is any merit to this analysis, it is to suggest that currently it is too easy for the principal to be charged with the responsibility of piloting the ship while the reality pressures of the job force him to become its mechanic.

Leadership in Distress

There are a number of consequences of this state of affairs, consequences that affect education vitally. Although reports vary, one account suggests that the principal's dilemma has not escaped the notice of the teachers.[11] Forty-three percent of the teachers studied did not think faculty meetings were used for thinking and working together, 35 percent did not think the principal tried to develop the faculty into a friendly enthusiastic team, 35 percent did not feel that teacher effort was recognized or that credit was given for achievement, 47 percent felt that they did not engage in problem-solving activities with the principal, and 42 percent said that they seldom or never received the type of leadership which helped them to do their best work.

This level of dissatisfaction cannot be attributed solely to ineptitude. These symptoms of leadership in distress are equally apparent to persons outside the educational system. The most voluble and biting critics have had at us from the vantage point of business and industry (and even the Navy) because they are dissatisfied with the results of education and because they compare the process of education with their own model of the way things ought to be done. They tend to have little sympathy with educational leadership and while education has always been a preferred whipping boy for societies in times of peril, we must take a critical look at the path we have decided to follow in educational leadership to see if, indeed, we have done less than we should have. Our critics should be treated as though they were after a clearer set of educational goals rather than as though they were after us personally.

Beyond the problem of the disaffection of some groups, the task of defining the principal's role has relevance for the process of selecting people to fill the position. In this respect, the spectre of the organization man is ever present to haunt us. It is the rare superintendent indeed who goes out of his way to select his principals from among the ranks of those brilliant but outspoken, insistent, and rebellious teachers who find their pleasure in disagreeing with his policies. Suggestions[3] that we state certification and pre- and in-service training requirements and establish realistic job standards for principals are worthwhile, providing that we simultaneously work on the issue of common purpose for the role of the principal.

If the call to revolution is falling on deaf ears in our school systems, then perhaps we should look to the universities and teacher training colleges for the ferment, reappraisal, and innovation that seem to be needed. A suggestion such as this will immediately remind the working administrator of the unfortunate gulf that frequently exists between theory and practice. Rules, principles, methods, and aims that have a ring of authority and reasonableness about them in seminar tend to pale suddenly when contrasted with the reality of the work-a-day world, and every principal feels that the demands of his particular school system are sufficiently unique to excuse the deviations he feels compelled to make.

To insist that change should be the responsibility of any outside agency or any group of theorists removed from this reality is a tacit admission that the spark of creativity and self-remedy has somehow been dimmed beyond the point needed to ignite change. To suggest that the administration of education is beyond self-help is a distortion of the facts since administrative persons are dedicated to the future of education as few others are. Industrial organizations do make use of the services of management consultants when they feel they have strayed from the proper path to the goals they consider important, but this represents too simple an analogy to fit the business of education. Outside experts can hardly cope with an enterprise in which there is disagreement about the proper nature of the finished product.

Even school systems that seem most stable and successful by current cultural standards are being attacked in terms of what has been labelled "the efficient production of an obsolete product." The complaint has been that our educational system has focused on competition, grade-getting,

and polishing technicians to higher sheen rather than on inspiring its gifted charges to the heights of their capacity.[9] Every administrator is acutely aware of the list of accusations to which education has been subjected; they hardly need to be listed here. These criticisms and pressures have brought us face-to-face with the need to examine the process of education in terms of consolidating a philosophy that will survive the next twenty years, and it seems reasonable to suggest that the anomolous role of the principal might well be a pivot on which we can begin to change the balance. It is imperative that this change issue from within the structure rather than from without, and it is equally clear that we need to use all the outside resources as intelligently as we can. Others besides the professional educator have an investment in the nature of education, and their contribution should not be discarded because of the offensive manner in which it is offered.

Redealing the Principal's Tasks

Before the movement to add assistant principals gets too far along, we ought to make some decisions about the role of the principal in order to avoid compounding our errors. This trend to make two where once there was one calls for putting first things first. A fanatic was once defined as a person who redoubles his efforts when he discovers he has lost sight of his goal, and assistant principals might fall into this category if we lack a philosophy that defines the principal's role more clearly.

What ought this role be? At a minimum, the principal's tasks ought to be shuffled up and dealt out to a new set of players. Whether assistant principals ought to get a new hand to play or whether certain teachers should be allowed to sit in on the game is not the important question because our concern should be with philosophy, not mechanics. It may be that we have too long neglected the possibility of parents' serving in administrative functions other than that of keeping minutes of the minutia of PTA meetings. This clearing of the administrative decks must be accomplished with an eye to freeing the principal to devote his energy to primary rather than secondary tasks. School custodians, fire drills, milk money, safety patrols, and the teachers' lounge are of fringe importance compared to the crucial issues of curriculum, teacher training, pupil mental health, or what in composite might better be labelled the fundamentals of teaching. This would mean returning the control of education to the principal even at the expense of abandoning some current directions that have implied that committees produce decisions superior to those of an individual with wise counsel. Such a change would mean a greater freedom for the principal to make decisions along a series of educational dimensions, and it could only take place at the expense of the centralization of power and the growing tendency to establish policy at great distance from the consumer of that policy. This shift of the locus of decision making seems to be the only way in which the principal can be elevated from the status of a member of a civics class who "plays at" self-government, yet must look to some other final authority for the important decisions. Only following such a step can the principal develop into an educational leader.

An Educational Integrationist

The principal might then evolve a plan of action that would take him back into the classroom, would acquaint him with his teachers and the process of teaching on an intimate and daily basis, and let him know his pupils in the only way that makes sense in shaping the individual educational experience. This role is a composite of the functions of the master teacher and principal-teacher, seasoned with the insights of specialists in education. The fractionation produced by an increasing horde of specialists is due for some reassembly in the person of an *integrationist* who can work with the continuous flow of educational experience as it exists in the individual child. If the principal is to become an in-residence agent of educational change, he must have all the skills and techniques needed to be certain that understanding goes hand-in-hand with change. Change by proclamation must be abandoned in favor of change through insight and growth by the teachers.

In this respect, training in the methods of research evaluation of the outcome of change is absolutely essential. Education has with some fairness been criticized for being addicted to a confusion of newness with goodness. Change too often seems to be an outgrowth of a mixture of dissatisfaction with things as they are and the personal enthusiasm of the originator of the change. Such changes last only until they are dis-

lodged by an even newer technique or a more vigorous conviction. The incessantly swinging pendulum of replacement of one method by another occurs in great part because these innovations are instituted with no provision for determining their outcome. If research and evaluation were made equal partners of change, it would be possible to slow down this process that sometimes appears to outsiders as confusion rather than progress.

The principal as educational integrationist would stop watching the store and start running the business, but this does not mean that he would retreat into the ivory tower of the most abstract aspects of education. It would mean, rather, that the contact the principal has with parents, teachers, and children would be oriented toward the problems of the core of education and not its fringes. His contact with special services personnel would have new meaning as he assembled the parts of a pattern, worked and planned with the teacher on individual problems, and used the insights gained from cases to design programs that would help whole classrooms. If the principal devoted himself just to curriculum planning and evaluation, teacher training and supervision, and pupil development and integrated these into a continuous flow of educational growth from the consumers of education, he could do more for the morale and inspiration of his teaching staff than all the teachers' lounges in the world.

The objection can rightfully be raised that what I have described might well fill a long felt need in education but that the position of integrationist has nothing to do with the job of being principal. It is obvious that I think the principal is the appropriate person for this position for two reasons. First, I think that even present selection procedures have culled out of the total group of teachers a force of highly able and motivated persons who are prepared to make a career of education. Second, this talent is being spent frivolously when it is burdened with the task of ministering to every loose detail in the school building. It seems, in addition, that this altered role for the principal would force a reappraisal of the executive function in education before it is so fixed by tradition that it becomes a sacred object whose imperfections we come to worship rather than alter to fit the second half of this twentieth century.

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Development of an Elementary School Program of Menstrual Education

JAMES WHITE

THE beginning of menstruation among young girls entering womanhood has presented a serious problem in the fifth and sixth grades of Radburn School in Fair Lawn, New Jersey. The majority of experts agree that the mother is more important than any other person or any book when it comes to informing a girl about menstruation. Theoretically, therefore, it is the mother's job. Many mothers, however, have a tendency to procrastinate in discussing this vital facet of a young woman's life—a fact that has been vividly portrayed to the teachers at our school.

Several incidents, embarrassing to the girls involved, have made those closest to the situation recognize the need for a constructive program to help eliminate any reoccurrence of misunderstanding about menstruation. Older girls also need a review of the fundamental information. Many of these girls still consider menstruation a deep mystery and have accumulated a fantastic jumble of facts and "old wives' tales" to compensate for their lack of knowledge about the subject.

The problem at our school was further complicated by the fact that five of the eight teachers in daily contact with girls of menstrual age were men. While many of the men had gained the confidence of the girls in their classes, questions concerning menstruation are generally not the type about which a young girl would consult a man. Even approaching a male teacher for permission to see the nurse during school hours was avoided for fear of embarrassing questions. The person consulted about so personal a problem should be an individual who faced a similar situation in youth; generally, therefore, a woman is best able to cope with the situation.

The problem was brought to a focus when a young girl giving off an offensive odor was sent to the nurse by a sixth-grade male teacher. The girl was menstruating. She had no idea what was taking place and was thoroughly afraid and embarrassed. The nurse attempted to explain the naturalness of menstruation to the girl and contacted her mother immediately to explain the situation. The girl's mother became very upset and bluntly told the nurse to mind her own business. She was of the opinion that a 12-year-old girl was entirely too young to be told the facts about menstruation. Furthermore, she claimed that the school had no right to explain this intimate physical process to her child, since it was not a matter that should appropriately be within the school's jurisdiction.

Planning the Program

This situation forced us to take steps to be better prepared to handle similar situations in the future and, so far as possible, prevent their reoccurrence. It was decided that a committee should be appointed to study the problem and offer tentative solutions and that the group should consist of the school nurse, a PTA representative, the school psychologist, and both a male and female sixth-grade teacher. The first step was to issue an invitation to the PTA to send a representative so we could have direct liaison with the mothers. Once this had been established, we were ready to attack the problem.

Recognizing that menstruation is a universal problem which faces all young girls, rather than an isolated problem at our own school, we de-

At the time of writing this article, James White was a fifth- and sixth-grade teacher in Fair Lawn, New Jersey. He is now a social studies and English teacher, West Kinney Junior High School, Newark, New Jersey.

cided to see if another school in our system had developed a working program designed to help girls understand menstruation. We received negative responses to our inquiries from the personnel at various neighboring schools.

We then consulted our own audio-visual center for possible sources of material. We were amazed at the wealth of material the audio-visual coordinator was able to supply. In addition, we wrote manufacturers of sanitary napkins and other sources we thought might be able to furnish useful information or materials. The response was excellent, including booklets, filmstrips, and an anatomical wall chart.

With ample material at our fingertips, we next had to decide how we should present it—what grade levels should be involved in the program and how extensive the coverage should be. These decisions would determine the type of program. Using the teaching guide published by a leading producer of sanitary napkins, we found the desired information. "Today, girls menstruate much earlier than they did years ago. A recent authoritative study reports that thousands start at 10; 1 in 4 by the time they are 11 years old; over half by the time they are 12 years old. On that basis, every girl should know about menstruation before her 11th birthday."

When should we schedule our menstrual education program—during the day or after school? The teaching of menstruation is appropriate to several subject-matter areas: health, home economics, physiology, physical education, and guidance. The elementary schools in Fair Lawn have self-contained units—that is, the classroom teacher teaches all units and may secure assistance from helping teachers in art, music, reading, physical education, and speech. This being the situation, it was decided that an after-school program would be most beneficial. We felt that boys in the fifth and sixth grades were too young to find this type of program a worthwhile experience. Splitting the class during the school day was not a usual procedure in the school and might create an unnatural situation. Planning the program for after school would also give us the opportunity to develop our plans jointly with our PTA.

Participation of Parents

Recalling our earlier experience with the irritated mother, we felt that it would be advisable to expose the mothers to the program first and then ask them to give permission for their daughters to take an active part in it if they desired. We also felt that any suggestions the mothers might offer after viewing the film would merit consideration and that the screening session would be valuable as a means to more thorough understanding of our objectives.

For our first meeting with the parents, we decided that our school nurse should speak for a few minutes since she would be involved professionally in the total program. Then, an appropriate film or filmstrip would be shown, followed by a discussion period. A committee consisting of the school nurse, two teachers, and two parents was asked to preview the film. Once they had made their selection, "The Story of Menstruation" by Walt Disney Productions, letters were sent to the mothers of all girls in the fifth and sixth grades, inviting them to come to a meeting to see the movie. The PTA had already informed the parents through its monthly newsletter that a program of this type was being planned. As a result, the mothers were aware of the plans we had been developing and were interested in attending the screening.

The meeting with the parents was held and the film was shown. The mothers were given an opportunity to express their opinions and copies of a booklet about menstruation were distributed. The nurse explained that girls start their menstrual periods at different ages and that parents should be on the alert for common sense signs that their daughters are approaching menstruation. The nurse elaborated on the importance of parents' watching for the following crucial times:

- When their daughter shows signs of maturing physically
- When their daughter asks questions about menstruation
- When their daughter's friends begin to menstruate.

The nurse emphasized that the last development is especially important since a girl may feel left out if her friends have begun to menstruate and she is told by her mother that it is something only grownups discuss.

The nurse also warned the parents not to be shocked by the slang terms their daughters might use for menstruation and for parts of their bodies. Rather, the correct terms should be substituted. Nicknames, also, should be avoided since, by their

very nature, they may sound alarming. Some of the incorrect information and "old wives' tales" which their daughters might have accumulated were also discussed—for example:

- Don't have a tooth filled during menstruation—the filling won't last.
- Loss of menstrual blood weakens you.
- Stay away from water.
- A permanent won't take while you're menstruating.
- Spend a day or two in bed.
- Don't take setting-up exercises.
- Cold drinks give you cramps.
- You never look your best on those days.

The majority of mothers seemed to be favorably impressed by the program and indicated their satisfaction with our plans to share it with their daughters. Several expressed the thought that the session had been educational for them and said they wished that the school had provided such a service when they were young girls. The parents recommended that a chart be used to show the location, function, and names of various organs when the program was presented to the children. They felt that such a chart would be a good supplement to the film and would be a helpful visual aid in answering the questions that would be raised. This suggestion was adopted.

The nurse requested that the parents allow their girls to attend the film unescorted by their mothers since she thought that the girls would be less apt to ask personal questions if their mothers were present. She also suggested that the mothers demonstrate to their daughters the proper method of using a sanitary napkin for maximum comfort and teach them to use a "keep track" calendar. Finally, the parents were asked to study the booklets on menstruation that we had distributed so they would be better prepared to handle discussions with their daughters which might result from their having seen the film.

Girls' Reactions

Shortly after the preview of the film by the mothers, mimeographed sheets were sent to the homes of all girls in the fifth and sixth grades asking whether their daughters might participate in the program.

The program for the students proved to be very successful. Utilizing as a basis for judgment the girls' reactions to the film and their willingness to ask frank personal questions, we felt certain that we had made positive progress in accomplishing our main objective—convincing girls that menstruation is a normal function. Girls with special problems made appointments to see the nurse individually.

Since our program was begun, we have found that girls go to see the nurse independently to discuss their particular problems. Our mothers are now better able to cope with the questions their daughters ask and the uneasiness and embarrassment between the two has eased considerably. It seems that one of our basic goals—human understanding with technical knowledge—is in the process of being achieved.

For the Future

We intend to follow a similar procedure in the future. Only the fifth-grade girls will attend, however, since the sixth graders participated in the program the year before. We are considering the possibility of starting the program in the fourth grade to be certain that all girls have acquired a basic understanding of menstruation before their first period. This plan, however, must be worked out between the school and the PTA.

While an explanation of menstruation before it begins helps to develop proper preparatory attitudes, we also believe that a program of the type we conducted should be used in the junior high school. A less authoritative program at that age level, perhaps in a health course, would further alleviate needless worry and fear. At junior high school age, boys are also more mature and an explanation of puberty is a necessary and vital part of their total education.

We hope to arrange conferences between sixth grade and junior high school teachers to discuss the possibility of continuing the program we have begun. Together, we hope to lay a psychologically sound program designed to meet the needs of each individual pupil.

We recognize that there will be unforeseen snags to iron out and lessons for us to learn as we develop a program dealing with what is usually considered a delicate subject. We are also aware that more parent education must be provided. By utilizing parents in the overall planning, operation, and evaluation of the program, we hope to develop greater mutual understanding and accrue benefits to all our children, collectively and individually.

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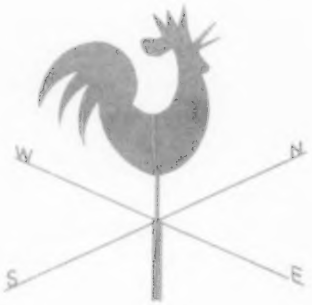

NEWS...

LOCAL - STATE - NATIONAL

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Florida Issues Publication

The Florida Department of Elementary School Principals has recently published a 20-page bulletin designed to help principals strengthen their instructional programs. Entitled *Effective Team Work for Instructional Improvement,* it explores some of the leadership techniques that enable a principal to work effectively with pupils, teachers, parents, and community agencies.

Through the eyes of a new principal, John Newcomer, the bulletin discusses some of the principles of learning that are basic to successful group action. It then analyzes the obstacles John Newcomer faced when he tried to launch a curriculum study in his school and suggests specific guidelines a principal can apply in organizing the staff and parents for instructional improvement. A final section describes how the principal can utilize the resources of the supervisory staff and community agencies.

Principals throughout Florida were actively involved in preparing the bulletin. Members of the state DESP participated in a series of seminars which were set up to secure a broad range of proven techniques for working toward instructional improvement. These ideas were then used as the basis for the publication.

Copies of *Effective Team Work for Instructional Improvement* are available at $1 each from the Florida Education Association, 208 West Pensacola Street, Tallahassee, Florida.

Maryland Studying Staffing

A special committee of the Maryland DESP has been making a study of the elementary school's staffing requirements. The group is analyzing the complex problems involved and preparing a series of recommendations.

Among the committee's preliminary recommendations are the following:

- Teacher-pupil ratio for the elementary school should be stated in terms of a specific number of professional staff members for a given total school population, rather than on a classroom-by-classroom basis. This type of standard would allow local boards freedom in organizing their schools without endangering their state aid funds.
- All elementary schools with 8 or more teachers should have a full-time principal. Larger schools (with 12 or more teachers) should also have a vice-principal.
- All elementary school principals in the state should be on a 12-month year and their salaries adjusted accordingly.

Other committees of the DESP in Maryland are working on studies of school organization and machine teaching.

NATIONAL DEPARTMENT

1962 Summer Conferences

The Department will sponsor three summer workshops during 1962. One of them, a combined travel and study tour of Mexico, is described on p. 57 of this magazine. Another will be held at the University of New Mexico in Albuquerque, July 9-20. The University is cosponsoring the conference with the DESP. Present plans call for the two-week meeting to focus on Latin America, but more complete information will be available within a few weeks. The third conference will be held

at the University of North Carolina in Chapel Hill. It is being planned for beginning elementary school principals from the southeastern states and will be cosponsored by the University.

Election of Officers

Candidates for the Department's Executive Committee were chosen September 21 and 22 by the Nominating Committee. Photographs and biographical information about the nominees may be found on p. 46-49. A detailed explanation of the procedures followed in nominating and electing DESP officers appears on p. 45.

The members of the Nominating Committee for the current election were:

H. Richard Adams, Principal, Wright-Denny School, Charles Town, West Virginia

Julianna L. Boudreaux, Principal, Robert Mills Lusher School, New Orleans, Louisiana

Glenn R. Melvey, Principal, Jefferson Elementary School, Fargo, North Dakota

Louise Reese, Director, Elementary Education, Public Schools, Massena, New York

Winston L. Scott, Principal, 95th Street School, Los Angeles, California

Annual Meeting Plans

The 1962 Annual Meeting, to be held March 24-28 in Detroit, Michigan, will take as its theme, *Guidelines to Excellence in Elementary Education.* The conference will open with a general session at 3:30 p.m. on March 24 and close with a banquet the evening of March 28. Detailed program information will appear in the January issue of this magazine.

Members of the Department will soon receive preregistration forms and hotel reservation blanks. Preregistration, which is open only to DESP members, will close in mid-February.

Amendment to Bylaws

At the Department's 1961 business meeting in Atlantic City last March, an amendment to the bylaws was approved for submission to the total membership in January 1962. (The constitution and bylaws require that amendments be given such preliminary approval before they are finally voted upon.)

The amendment is to Article IV, Section 3, of the bylaws which presently reads: "The life membership fee shall be one hundred dollars ($100).

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Payment of this fee may be made in full or in deferred payments of ten dollars ($10) or twenty dollars ($20) per year. The certificate and emblem of life membership in the Department shall be issued following the initial payment toward life membership."

The proposed change in the bylaws would make this section read as follows: "The life membership fee shall be *twenty (20) times the annual fee for membership.* Payment of this fee may be made in full or in deferred payments *of twenty dollars ($20) per year.* The certificate and emblem of life membership in the Department shall be issued following the initial payment toward life membership."

Adoption of this proposal requires a majority vote of the active members casting ballots.

The DESP's Executive Committee supports the proposed change in Article IV of the bylaws as necessary to bring the annual dues of $8 and the life membership fee into proper relationship. In 1960, when the membership voted to increase annual dues from $5 to $8, a corollary proposal that would have raised life membership fees proportionately was defeated. The amendment that will be voted upon in January is intended to correct the present imbalance. The Executive Committee believes that adoption of the amendment is essential for the Department's future financial well-being.

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Yearbook on School Organization

We are pleased to announce that the Department's yearbook, *Elementary School Organization: Purposes, Patterns, and Perspective,* will incorporate valuable material from a related publication now being developed by the NEA's Project on Instruction.

A major publication of the NEA Project will be on the subject of "Planning and Organizing for Teaching." The manuscript is being prepared by John I. Goodlad, Professor of Education, University of California, Los Angeles. Among other things, the publication will examine a number of organizational patterns and formulate guidelines for making decisions about them.

The Project publication, which should be of interest to DESP members, will not be ready for distribution until the 1962-63 school year, but a draft of the manuscript has been made available to our Department so that we may draw upon portions of it to enrich our own publication. To take advantage of this material, we are delaying our yearbook for a few weeks beyond the announced date of December 1. We feel that the value to members in having this timely material included in our publication justifies a brief delay in distribution.

Former DESP President Dies

Sarah L. Young, who was president of the Department from 1942 to 1944, died late last August. Miss Young had been an outstanding elementary school principal in Oakland, California, for many years prior to her retirement.

Executive Committee Meets

The Executive Committee of the Department of Elementary School Principals, NEA, met in Washington September 30-October 6. The Committee discussed all major aspects of the Department's program and made many decisions about plans for the coming months.

Minutes of the meeting will be published in the Executive Secretary's annual report next September; however, many of the major action items will be reported through this column in coming issues.

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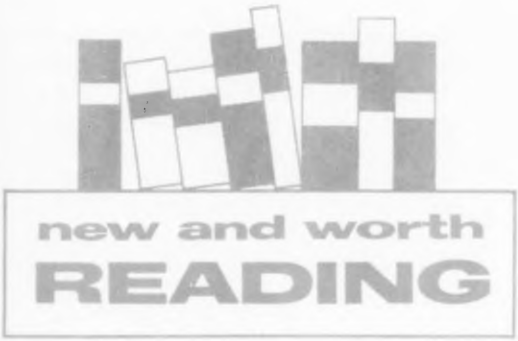

The Transformation of the School. Laurence A. Cremin. New York: Alfred A. Knopf, 1961. 387 p. $5.50.

As the subtitle, "Progressivism in American Education, 1876-1957," clearly denotes, this is a book about the rise and fall of the Progressive Empire. Dr. Cremin's fluent style and interesting presentation of any subject would be sufficient recommendation, but when one realizes that a knowledge of history saves us the necessity of repeating it, the contents of this volume take on added significance.

The air is full of recriminations and accusations about the school's failure to measure up to the demands of the times. Principals daily face a barrage of criticism, much of it ignorantly attributed to that "awful" era of Progressive Education. Practically every crime in the books has been traced to the evil influence of its nefarious practice. This is serious enough in itself, but when it is coupled with an equal amount of misinformation and downright ignorance on the part of those who attempt to defend the schools, the felony has been doubly compounded. A little reading of the history of education of the past 100 years, particularly when it is so attractively presented, might go a considerable length toward putting an end to the favorite indoor sport of blaming Progressive Education for everything from downright subversion to the making of fudge in home economics classes.

The brief 35 years of the existence of Progressive Education probably constitute one of the most influential periods in public education, in this or any other country. Progressive Education has left us a legacy we are still trying to assess. In fairness, and as a potential defense for many of the practices which persist in our schools, it seems sensible to propose that school principals be aware of its contributions, its antecedents, and the extent of its influence.

It is not generally realized that the formal movement which became known as Progressive Education was a tardy aspect of a general cultural trend in America which had its roots in the latter half of the nineteenth century. Following the Civil War, America turned its attention toward more effective ways of achieving the good life. These early efforts were focused on politics and agriculture, and only later did they affect the work of the schools. Belatedly, American educators and philosophers began to call on the schools to help in the new national purpose, even to the point that thoughtful people began to wonder if the school curriculum was not already becoming overcrowded. Others wondered if the school should take on a host of auxiliary responsibilities and called attention to the time-honored function of schools to deal with intellectual development. Sounds like today, doesn't it? And yet, these events were occurring before 1900!

The movement toward Progressivism writ large, and the inevitable following of the school in its effort to serve its society, was aided by the emergence of psychology from the dominating control of philosophy and its attempt to assume the stance of a mature science. The early psychologists, such as G. Stanley Hall, gave impetus to the school's expansion of responsibilities. It should be remembered in this context that John Dewey was then a mere instructor in psychology at the University of Michigan.

During the 50 years immediately following the Civil War, schools struggled to accept the new definition of their duties, but they were poorly prepared for the task. The increased burdens thrust upon them, complicated by the sudden influx of enrollment, created a wave of criticism not unlike that through which we are currently passing. Its major difference, and an important one, was that schools were then criticized for *not* doing what they are now attacked for doing!

There were plenty of creative thinkers available to give direction to the new education and to establish pilot programs as illustrations. Francis Parker and John Dewey established experimental schools which attempted to develop cur-

ricula adapted to the new demands on schools. They were followed by such schools as Menomonie, Fairhope, and Gary. The period did not lack for those whom Dr. Cremin identifies as "scientists, sentimentalists, and radicals"—those who had their pet theories about what the schools should do. The author nicely disposes of them by saying, ". . . the avant-garde pedagogues expanded one part of what progressive education had formerly meant into its total meaning, and in so doing they wrought a caricature that was quickly taken up as the ultimate meaning of the movement itself." (p. 202.)

While the movement to expand the role of the school and to reinterpret its functions had its roots in the nineteenth century, formal creation of an instrument for its implementation did not occur until the twentieth century. It was not until 1919 that fewer than 100 people gathered together for the purpose of trying to bring order out of educational chaos. The group was primarily intended to be an association of parents and "others" who were interested in the improvement and systematization of educational reform. It had no program of its own and no official platform for action. It steadfastly maintained that its program could not be defined. In assessing the contributions of the Progressive Education Association, Dr. Cremin says: "It gave the movement structure, voice, and visible form; it infused the movement with vitality and enthusiasm; and it provided the movement with dedicated leadership. In pamphlets, books, conferences, conventions, committees, and institutes that touched the lives of thousands upon thousands of teachers, the Association spread the progressive word. And it measured its success in the changing character of the American classroom." (p. 271.)

Why did the movement die of its own volition in the second half of the century? Cremin ascribes seven reasons for its demise:

1) Distortion by some of its overenthusiastic champions
2) Negativism—it was a revolt against rather than a dedication to something positive
3) The inordinate demands the proposals placed upon the classroom teacher
4) The heady wine of success which turned it from reform to defense of its achievements
5) The national swing away from reform to conservatism and the resultant conflict of the movement with national purposes
6) The infiltration into its ranks of the professionals and the resultant loss of lay representation
7) Its failure to keep pace with the transformation of American society.

Dr. Cremin has written a well-balanced, objective analysis of an era in education that has had tremendous influence on classroom practices. The movement deserves and receives credit for its accomplishments and a clear recognition of its defects. A careful and critical reading of this book could do more to help bring clarity to the muddled situation in schools than many a book on educational methodology.

Group Development, Selected Reading Series One. Leadership in Action, Selected Reading Series Two. National Training Laboratories, NEA. Washington, D.C.: the Association, 1961. $2.00.

It is exceedingly difficult to review publications composed of a series of separate and disparate articles. These two volumes of the series of four published by the National Training Lab-

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oratories, NEA, are selected for their obvious relevance to the work of the elementary principal.

The first volume, *Group Development*, edited by Leland P. Bradford, consists of 12 articles on various aspects of group action, all of them originally appearing elsewhere. In the lead article, a common misconception of group dynamics is clarified. The dynamics of a group is a phenomena which lends itself to systematic study; it is the inevitable behavior in which groups of people engage. One does not "use" group dynamics; one studies it.

If one were to select from the list the two articles which seem to offer most help to the principal, the choice would be the one written by Bradford entitled "The Case of the Hidden Agenda" and the one by Gordon Lippitt called "Improving Decision-Making by Groups." This selection should not be interpreted as rejection of the other articles; all of them will bring important insights to the principal who desires to obtain maximum mileage out of his faculty meetings.

Leadership in Action brings to the reader analyses of leadership as a function of administration. Harried and frustrated principals might take comfort from reading the article by Chris Argyris entitled "Research Trends in Executive Behavior" to understand better the reasons for principals not being more popular with their staffs. It becomes increasingly clear that all administrators work in the presence of an irreconcilable conflict in purposes—those of the organization and those of the individuals who make up the organization. Organizations, for their very existence and their proper operation, depend upon conforming behavior, while individuals, in order to mature and develop as individuals, demand an increasing degree of freedom of action and decision. Perhaps the next time the principal finds himself in opposition to teachers, he will be less likely to accuse them of unnecessary perversity and stubbornness.

Both of these publications bring to the principal some fundamentally sound proposals for his management of groups. It will not take much cerebration to discover the direct relevancy of the material to his immediate problems. Principals who want to find better ways to run schools will find a rich resource of help in these documents from the National Training Laboratories.

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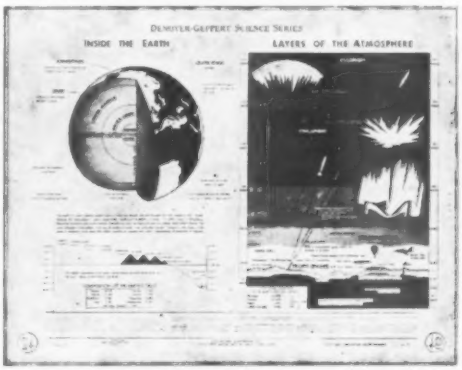

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Perspective on Teaching. Lawrence G. Thomas, Lucien B. Kinney, Arthur P. Coladarci, and Helen A. Fieldstra. Englewood Cliffs, N.J.: Prentice-Hall, Inc., 1961. 432 p.

Normally, books written as first courses in the introduction to education are not of particular interest to school principals. But when the subject matter of such a book is presented as an overview of the whole field, it becomes an excellent means by which the principal may "catch up" on the growing edge in education.

Written by three professors at Stanford University and a general supervisor in California's public schools, the book represents a many faceted approach to education's problems. While primarily designed for students preparing to teach, it probably has greater value to those already in service. The ideas presented appear to be much too sophisticated and advanced for those not yet experienced in teaching. However, it provides a framework for thinking about and planning educational programs for those who face these tasks. As such, the volume could well supply material for many a faculty meeting.

The book is divided into three main sections, each intending to serve a different purpose. Part I presents some of the more important aspects of public school practice. Among its six chapters, Chapter 3 on the curriculum and Chapter 4 on guidance merit special attention.

Part II will probably prove to be of major interest to practicing teachers and principals. Entitled "Concepts, Conflicts, and Consequences," it deals with the educative process, the functions of teaching, the influence of environment on learning, the setting of educational goals, and the process of evaluation. Of special significance is Chapter 11 on the problems and opportunities for teaching democracy in the classroom.

Part III is intended to present teaching as a profession, most of which is material with which the principal is already familiar. But Chapter 13 is one which all professionally minded principals will want to read with special attention. It presents a discussion of the characteristics of professionalism and makes an important contribution to the literature. The occupation of teaching is desperately striving to achieve professional status. Whether it makes the grade or not will depend rather importantly on the quality of leadership it obtains. By acquaintance with the goals of professionalization and some of the benchmarks which distinguish it from other activities, principals can provide teachers with a sense of direction they now seem to lack.

The book is written on a relatively high verbalistic level—a fact which constitutes both its strength and weakness. Basic principles and theoretical analyses cannot be presented in simplified language without encouraging oversimplification of ideas. This makes the reading a great deal more difficult. But any respectable treatment of the more substantial aspects of education will suffer from this fault. The strength of the book lies in its careful analysis and presentation of the basic components of public school procedures. For this reason, one is forced to raise the question of whether the authors have not attempted the impossible—the description of educational problems and concepts to an audience in the least advantageous position to understand what they are talking about. In my judgment, the book will serve a more useful purpose as a springboard for discussion among experienced teachers.

WILBUR A. YAUCH
Book Review Editor

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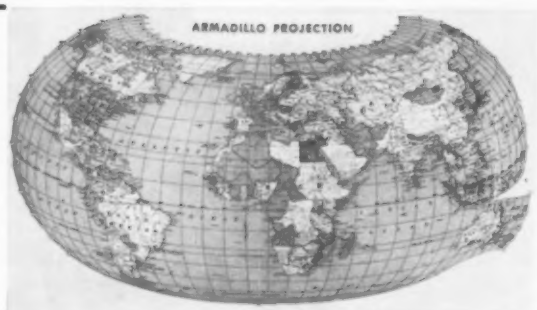

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COMING EVENTS

December 2-5: 7th Curriculum Research Institute, Eastern Section. Association for Supervision and Curriculum Development. Washington, D.C.

February 17-21: Annual national convention, American Association of School Administrators. Atlantic City, New Jersey.

February 14-17: Annual meeting, American Association of Colleges for Teacher Education. Chicago, Illinois.

February 17-21: Department of Elementary-Kindergarten-Nursery Education. In conjunction with AASA. Atlantic City, New Jersey.

February 24-28: 46th annual convention, National Association of Secondary School Principals. St. Louis, Missouri.

March 4-8: Annual conference, Association for Supervision and Curriculum Development. Las Vegas, Nevada.

March 24-28: Annual meeting, Department of Elementary School Principals, NEA. Detroit, Michigan.

March 25-30: National convention, Department of Audiovisual Instruction, NEA. Kansas City, Missouri.

March 30-April 3, 1963: Annual meeting, Department of Elementary School Principals, NEA. Oklahoma City, Oklahoma.

April 18-22, 1964: Annual meeting, Department of Elementary Principals, NEA. Minneapolis, Minnesota.

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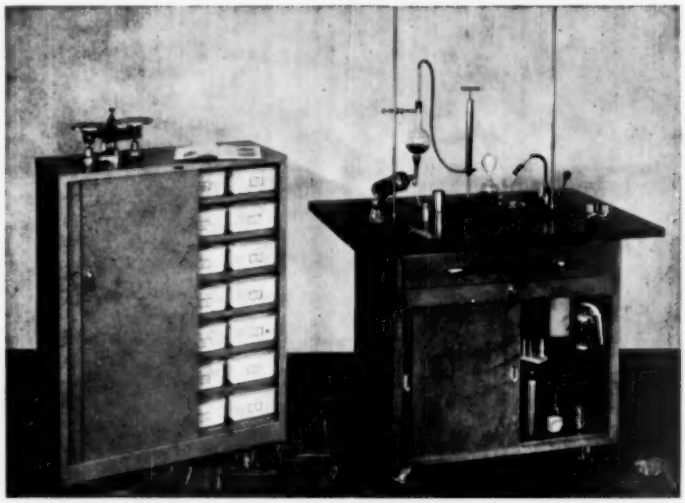

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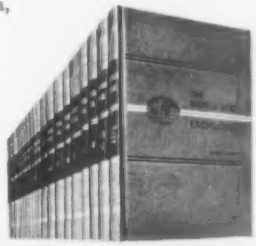

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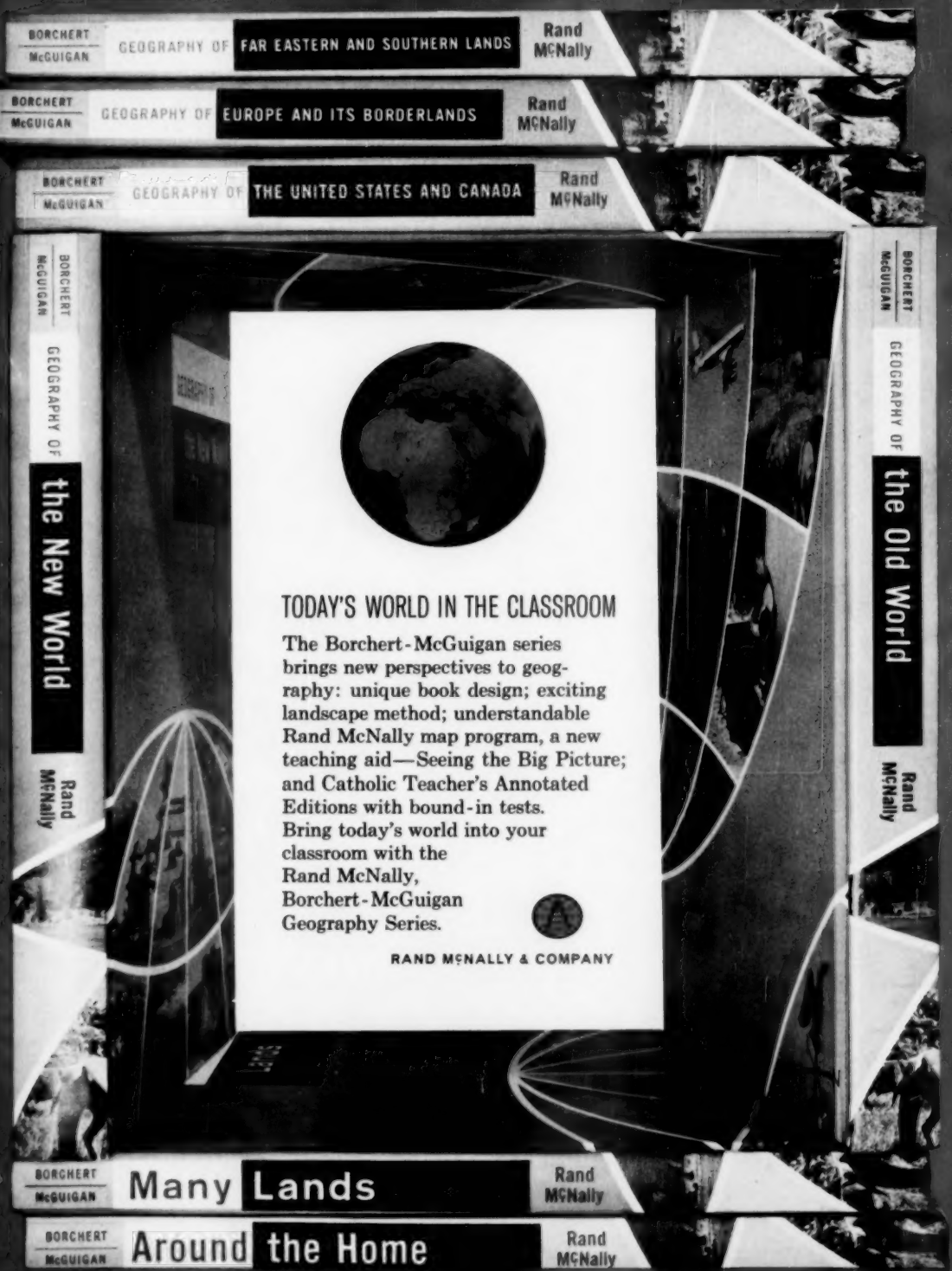
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